Authorship, availability and validity of fish names described by Peter (Pehr) Simon Forsskål and Johann Christian Fabricius in the ‘Descripiones animalium’ by Carsten Niebuhr in 1775 (Pisces)

Ronald Fricke

Abstract

The work of Peter (Pehr) Simon Forsskål, which has greatly influenced Mediterranean, African and Indo-Pacific ichthyology, has been published posthumously by Carsten Niebuhr in 1775. Forsskål left small sheets with manuscript descriptions and names of various fish taxa, which were later compiled and edited by Johann Christian Fabricius. Authorship, availability and validity of the fish names published by Niebuhr (1775a) are examined and discussed in the present paper. Several subsequent authors used Forsskål’s fish descriptions to interpret, redescribe or rename fish species. These include Broussonet (1782), Bonnaterre (1788), Gmelin (1789), Walbaum (1792), Lacepède (1798–1803), Bloch & Schneider (1801), Geoffroy Saint-Hilaire (1809, 1827), Cuvier (1819), Röpell (1828–1830, 1835–1838), Cuvier & Valenciennes (1835), Bleeker (1862), and Klunzinger (1871).

A total of 324 taxa in 114 families were treated by Niebuhr. Among these, a total of 153 new species (90 valid), and 5 new genera (all valid), were described. 26 additional nomina nuda were listed. A total of 126 names described in Niebuhr (1775a) are available, while 49 names are not available; 22 of these were subsequently made available. Though Niebuhr (1775a) is not consistently binominal, and would have to be rejected when strictly following Art. 11.4 of ICZN, it is here advised not to apply Art. 11.4 in this case to follow the principal aim of the Code, i.e. stability of nomenclature. Forsskål is the author of 68 available new taxa, while Fabricius authored 67; 22 taxa were subsequently made available by Bath, Bleeker, Bloch & Schneider, Bonnaterre, Cuvier, Fourmanoir & Guéhé, Gmelin, Lacepède, Röpell, and Walbaum. Four valid species require obligatory changes of their names: Lebæ vulgaris Heckel, 1847 replaces Lebœ niloticus (non Linnaeus, 1758; sensu Forsskål, 1775); Distichodus nefasch (Bonnaterre [ex Forsskål], 1788) replaces Distichodus niloticus (Hasseldquist, 1762) (Citharinidae); Cheilodipterus arabicus (Gmelin [ex Forsskål], 1789) replaces Cheilodipterus lineatus (non Linnaeus, 1758) sensu Forsskål in Niebuhr, 1775 (Apo gonidae); Symphysodon ocellatus (Linnaeus, 1758) replaces Symphysodon ocellaris (Linnaeus, 1758) and Symphysodon ocellatus (Forsskål in Niebuhr, 1775) (Labridae). 85 additional taxa require changes of authorship. In the case of Fabricius’ authorship, and in 13 additional cases, where commonly used species names are threatened by unused names published in Niebuhr (1775a), applications to the International Commission on Zoological Nomenclature are required to stabilise current usage.

Keywords: Peter Simon Forsskål, Johann Christian Fabricius, fishes, nomenclature, authorship, availability, validity, ICZN, Egypt, Mediterranean Sea, Red Sea.

Zusammenfassung


Niebuhr behandelte insgesamt 324 Taxa in 114 Familien. Darunter befinden sich 153 Beschreibungen neuer Arten (davon 90 gültige Arten) und fünf neue Gattungen (alle gültig). Zusätzlich wurden 26 Nomina nuda aufgeführt. Insbesondere 126 der Artensamen sind verfügbar, während 49 Namen nicht verfügbar sind; 22 der letzteren Namen wurden später durch andere Autoren verfügbar gemacht. Obwohl die Nomenklatur in der Arbeit von Niebuhr (1775a) nicht durchgehend binominal ist und eigentlich bei strikter Anwendung von Art. 11.4 der Internationalen Nomenklaturregeln ungültig wäre, wird empfohlen, in diesem Fall nicht dem Art. 11.4 zu folgen, in Einklang mit dem Aufgaben der Nomenklatur, der Stabilität der Nomenklatur. Forsskål ist der Autor von 68 verschiedenen Taxa, Fabricius von 67; 22 Taxa wurden später durch Bath, Bleeker, Bloch & Schneider, Bonnaterre, Cuvier, Fourmanoir & Guéhé, Gmelin, Lacepède, Röpell und Walbaum verfügbar gemacht. Sieben Arten benötigen obligatorisch geändert werden: Lebæ vulgaris Heckel, 1847 ersetzt Lebœ niloticus (non Linnaeus, 1758, sensu Forsskål, 1775) (Cyprinidae); Distichodus nefasch (Bonnaterre [ex Forsskål], 1788) ersetzt Distichodus niloticus (Hasseldquist, 1762) (Citharinidae); Cheilodipterus arabicus (Gmelin [ex Forsskål], 1789) ersetzt Cheilodipterus lineatus (non Linnaeus, 1758) sensu Forsskål in Niebuhr, 1775 (Apo gonidae); und Symphysodon ocellatus (Linnaeus, 1758) ersetzt Symphysodus ocellaris (Linnaeus, 1758) und Symphysodus ocellatus (Forsskål in Niebuhr, 1775) (Labridae). Außerdem bedürfen 85 weitere Taxa einer anderen Änderung der Autorenschaft. Im Fall der Autorenschaft des Fabri-


1 Introduction

The work of Peter (Pehr) Simon Forsskål has greatly influenced Mediterranean, African and Indo-Pacific ichthyology. Forsskål was one of the so-called ‘Linnaeus Apostles’, who were sent out to discover the natural history of unknown parts of the world. During a Danish expedition in 1761–1763, Forsskål was the first to collect and examine plants and animals, including fishes, in the Red Sea area. On his way there, he had the chance to work in the field in parts of the Mediterranean Sea and the Nile in Egypt, and compared his findings with previously published works (Hasselquist 1757, Linnaeus 1758). This included numerous fishes he collected and started to describe. Forsskål died in Yemen during the expedition, and the only survivor, Carsten Niebuhr, returned with some collections and Forsskål’s manuscript notes, and published the fish descriptions posthumously (Niebuhr 1775a).

We do not have much direct evidence about Forsskål’s work, the expedition and his findings. Most information is found in Niebuhr’s copies and translations; the original Forsskål documents are either missing or lost. It is therefore essential to understand Niebuhr’s role.

Carsten Niebuhr (Fig. 1) was born on 17 March 1733 in Lüdingworth-Westerende, Hadeln region, Hannover/Germany (Niebuhr 1817, Carstens 1886, Ehrencron-Müller 1929, Lohmeier 2002). He worked as a farmer in his early years, but managed to learn surveying, studied in Göttingen in 1757–1760, then moved to Denmark and accepted a position as Lieutenant Engineer in 1760. On the order of the King of Denmark Frederik V, he joined the expedition to ‘Arabia Felix’, i.e. Yemen, as the geographer. The other participants were Prof. Peter (Pehr) Simon Forsskål as a naturalist (biography see below), Christian Carl Cramer (Kramer) (1732–1764) as a surgeon and naturalist (see Ehrencron-Müller 1925: 293–294), Georg Wilhelm Baurenfend as an artist and painter, Prof. Frederik (Friderich) Christian von Haven (1727–1763) as the philologist and Arabist (see Ehrencron-Müller 1926: 450–451), and Berggren, a Danish soldier, who joined as the servant. The expedition left Copenhagen on 4 January 1761 (Hansen 1965), travelled via Marseille (13 May–14 June 1761), Malta (14–20 June 1761), the Greek Archipela-
cies observed in the Mediterranean Sea and in Egypt. The expedition then left Egypt by mule and small coastal vessels and finally arrived in Yemen in December 1762. Their orders required that they should stay for 2–3 years. Apparently, all of them soon got various diseases, probably diarrhoea, possibly also malaria. Within a year, the participants of the expedition died one by one under mysterious circumstances, von Haven as the first in Móchha on 25 May 1763, then Forsskål in Jerim on 11 July 1763; the others decided to leave Yemen on the next vessel from Móchha (Al-Mukhā/Yemen) towards Bombay, but Bau-
renfeind and Berggren died on board the ship, and Crä-
mer passed away on 10 February 1764 in Bombay. Carsten
Niebuhr was the only survivor; he left India in the autumn
of 1764, continued the expedition and returned via Mus-
cat/Oman, Iran, Iraq, Syria, Cyprus, Palestine and Turkey
to Denmark, where he arrived on 20 November 1767.

After his return, he immediately started publishing an
expedition report (Niebuhr 1772), and, posthumously, the
work of his colleagues, especially Forsskål. The fish
specimens were described in Niebuhr (1775a), and a few
illustrations were published by Niebuhr (1776). Niebuhr
received the full credit of a successful expedition, despite
the fact that his companions had died en route. In 1768, he
was appointed captain of the army; he retired in 1778 and
moved back to Germany, where he continued his scientific
career. Niebuhr died on 26 April 1815 in Meldorf/Germa-
ny.

Peter (Pehr) Simon Forsskål (Fig. 2) (spelling of fam-
ily name see Friis & Thulin 1984) was born on 11 January
1732 in Helsingfors (Helsinki); he studied in Uppsala in
1742–1753 and 1756–1759, was a scholar of Carolus Lin-
næus (Carl von Linné) and became a botanist (Sparck
From 1753–1756, he moved to Göttingen/Germany and
became of student of Johann David Michaelis, who origi-
nally had the idea of an expedition to Yemen. Forsskål
was a radical moderniser (in 1759, he had published ‘Thoughts about the freedom of citizens’), and when he
joined the Arabian expedition, he soon had disputes on
this topic with von Haven and others. We know what hap-
pened during the later expedition through the sparing
notes in von Haven’s and Forsskål’s diaries, but mostly
through Niebuhr’s reports. Mainly interested in botany
and having collected and described many plants, he pre-
viously also examined numerous fish, other vertebrate
and invertebrate species. Forsskål, however, had pre-
served relatively few specimens following a strong dis-
agreement with a letter from the Danish government he
received in Cairo. He knew that against his intentions he
would have to return the specimens to Copenhagen. He
did not trust the Danish government any longer. However,
he would have been allowed to keep his notes and descrip-
tions and take them back to Sweden (as a ‘Linnaeus Apos-
tle’, he would have been expected to report directly to
Linnaeus himself). Therefore, he concentrated on taking
notes and diagnoses of the fish species he found. At Jed-
dah, the expedition stayed for six weeks, and Forsskål’s
official diary entries were very brief, lacking any detailed
information about the town (Forsskål 1950: 112), so that
Hansen (1965: 229) suspected that he was tired and not
active any more. The contrary is true; we know from the
Descriptiones animalium (Forsskål in Niebuhr 1775a)
that most of the Red Sea fish descriptions were taken in
Jeddah, and there were a total of 70 fish species described
from there. At Jeddah, Forsskål just did not bother to
write entries for a diary that he had to send to Copenha-
gen. Forsskål wrote an (illegal, as he was not allowed to
give scientific information to anybody outside the Danish
government) letter to Carl von Linné in Uppsala with in-
formation on some of his findings, and that his only aim
was to stay alive long enough to present him his findings
in person; if not, this would be a severe loss for science.

Previously, he had sent a shipment of marine speci-
mens from Constantinople (İstanbul) in 1761, which took
two years to arrive in Copenhagen. The material was com-
pletely disintegrated on arrival, and had to be discarded
(Hansen 1965: 306). Another shipment from Egypt was
severely damaged by pirates during its journey, and a par-
cel from Suez was lost on its way. More alcohol-preserved
material had to be discarded during the trip on board the
vessel from Jeddah to Al-Luhayya, as alcohol rapidly
evaporated in the hot climate and the material started de-
caying, so that the smell became unbearable on board the
small vessel.
In Lohaja (Al-Luhayya/Yemen), the first stop in ‘Arabia felix’ (Lucky Arabia/Yemen), the Danish expedition had temporarily a relatively good and happy time. **FORSKÅL**, who was mainly interested in botany and made long excursions into the desert, still found some time to work on his fish descriptions. However, he did not collect much material, apparently only a few small bottles with fishes in alcohol. This collection was sent to Al-Mukhā, while the expedition planned to spend the hot summer in the Yemeni mountains, but as they were all ill, they decided to visit Al-Mukhā immediately, which was, in the end, not a wise decision. The (small) remaining fish collection was inspected and mostly destroyed by a customs officer (**HANSEN** 1965: 270–271), and the members of the expedition, including **VON HAVEN** who was severely ill, had even problems with finding accommodation in town.

After the raid in Al-Mukhā and the death of **FORSKÅL**, the remaining material was taken by **NIEBUHR** to Bombay and then shipped to Copenhagen via Tranquebar. During the long voyage, some material was destroyed by salt water or disintegration, and had to be discarded in Tranquebar. Ten parcels with **FORSKÅL**'s materials were received by **ASCANIUS**, curator of the natural history collection in Copenhagen (**HANSEN** 1965: 309). Unfortunately, **ASCANIUS** did not curate the materials, but left the parcels unopened for several years. In 1765 **LINNAEUS** asked the young zoologist **BRÜNNICH** about the state of the collections, who informed him that they were still locked up by **ASCANIUS** and neither curated nor available for research (**HANSEN** 1965: 309–310).

The remaining material was finally returned to Copenhagen and survived serious miscuration by **ASCANIUS** (**HANSEN** 1965: 308–310). **BRÜNNICH**, the new curator of the Copenhagen natural history collection, reopened **FORSKÅL**'s parcels in 1772, sorted out the material which could still be used, and discarded rotten material. Unfortunately, since the bombardment of Copenhagen in 1807, the specimens were deposited in the magazine without curation and respiriting for another 30 years, and additional material was lost (**HANSEN** 1965: 310–311). Today, only 99 specimens of fishes, exclusively consisting of the dried fish skins that **FORSKÅL** mainly collected in Jeddah, are remaining (**KLAUSEWITZ & NIELSEN** 1965, **RAMMUSSEN** 2002: 45). Types of **FORSKÅL** species in ZMUC are listed by **NIELSEN** (1974). In addition, specimens collected by **FORSKÅL** were used for species descriptions by **BRÜNNICH** 1768 (**HANSEN** 1965: 310).

The work published by **NIEBUHR** (1775a) is extremely inconsistent and full of errors; nevertheless, many fish species that are still considered valid were described in this work. The author has generally been given as **FORSKÅL**, but several names, diagnoses and descriptions were compiled subsequently, and **FORSKÅL** neither knew about this usage nor would have intended to name the genera and species that way. Therefore, authorship, availability and validity of the fish names published by **NIEBUHR** (1775a) are examined and discussed in the present paper.

**Acknowledgments**

I would like to thank the following individuals for providing information about **FORSKÅL**'s materials and history, and for discussing taxonomical questions and rules: **WILLIAM N. ESCHMEYER** (California Academy of Sciences, San Francisco, USA); **GERHARD FALKNER** (SMNS); **PIETER R. MØLLER**, **CLAUS NIELSEN**, **JORGEN G. NIELSEN** and **THOMAS PAPE** (ZMUC); **PHILIPPE PROVENÇAL** (Århus University, Århus, Denmark); **STIG T. RAMMUSSEN** (Det Kongelige Bibliotek, Copenhagen, Denmark). I am grateful to **SABINE PETRI** (SMNS) who assisted with loans of rare books, and with historical research. Librarians of the Botanisk Centralbibliotek, Botanisk Have & Museum (Copenhagen, Denmark), National Library, University of Helsinki (Helsinki, Finland), the Science Library, Viikki University Campus (Helsinki, Finland), the Staats- und Universitätbsbibliothek, Forschungsbibliothek (Göttingen, Germany), the Universitätsbibliothek, Christian-Albrechts-Universität (Kiel, Germany), and the Württembergi-

**Tab. 1. Authors of nominal taxa of fishes based on **FORSKÅL**’s descriptions.**

<table>
<thead>
<tr>
<th>Author</th>
<th>Name</th>
<th>Lifetime</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Anonymous</strong></td>
<td>Unknown Maltese father who provided a list of Maltese fishes during <strong>FORSKÅL</strong>’s visit in La Valletta, 14–20 June 1761; he was called a ‘learned friend’ in <strong>FORSKÅL</strong>’s diary</td>
<td></td>
</tr>
<tr>
<td><strong>Bleeker</strong></td>
<td>PIETER BLEEKER</td>
<td>1819–1878</td>
</tr>
<tr>
<td><strong>Blech</strong></td>
<td>MARCUS ELIESER BLECH</td>
<td>1728–1799</td>
</tr>
<tr>
<td><strong>Bonnaterre</strong></td>
<td>PIERRE JOSEPH BONNATERRE</td>
<td>1747(?)–1804</td>
</tr>
<tr>
<td><strong>Fabricius</strong></td>
<td>JOHANN CHRISTIAN FABRICIAN</td>
<td>1745–1808</td>
</tr>
<tr>
<td><strong>Forskål</strong></td>
<td>PETER (PEHR) SIMON FORSKÅL</td>
<td>1732–1763</td>
</tr>
<tr>
<td><strong>Gmelin</strong></td>
<td>JOHANN FRIEDRICH GMELIN</td>
<td>1748–1804</td>
</tr>
<tr>
<td><strong>Klunzinger</strong></td>
<td>CARL BENJAMIN KLUNZINGER</td>
<td>1834–1914</td>
</tr>
<tr>
<td><strong>Lacepède</strong></td>
<td>BERNARD ÉTATIE GERMAIN DE LA VILLE-SUR-ILLON, COMTE DE LACEPÈDE</td>
<td>1756–1825</td>
</tr>
<tr>
<td><strong>Nieuwiet</strong></td>
<td>CARSTEN NIEBUHR</td>
<td>1733–1815</td>
</tr>
<tr>
<td><strong>Rüppell</strong></td>
<td>(WILHELM PETER) EDUARD (SIMON) RÜPPELL</td>
<td>1794–1884</td>
</tr>
<tr>
<td><strong>Schneider</strong></td>
<td>JOHANN GOTTLOB SCHNEIDER</td>
<td>1750–1822</td>
</tr>
<tr>
<td><strong>Valenciennes</strong></td>
<td>ACHILLE VALENCIENNES</td>
<td>1794–1865</td>
</tr>
<tr>
<td><strong>Walbaum</strong></td>
<td>JOHANN JULIUS WALBAUM</td>
<td>1724–1799</td>
</tr>
</tbody>
</table>
The authorship, availability and validity of fish names listed and described in Niebuhr (1775a) are examined. For each of these taxa, the currently used name is given first; then, the original reference(s) of Niebuhr (1775a) are quoted with exactly the same typesetting as in the original text, including errors. In the case of new taxa, the type locality, type materials, the genus and species names used by Forsskål and Fabricius, and the Latinised Arabic names are given. Families are arranged according to Nielsen (2006). In a ‘Remarks’ section, authorship, criteria of availability, validity, and eventual synonymies of subsequently described names based on Forsskål’s description, are discussed. The spelling of the name Forsskål follows Fris & Thulin (1984), though the name was spelled ‘Forskal’ in the original publication (Niebuhr 1775a).

Type material and other Forsskål material is listed if available; if no types or materials are known, they are omitted in the species accounts.

In accordance with the International Code on Zoological Nomenclature ‘ICZN’ (Anonymous 2007a), the aim of stability of nomenclature is accepted as the basic principle in the present paper, as far as possible, names of prevailing usage are retained. Changes of authorship of taxa originally described in Niebuhr (1775a) are quoted here for nomenclatural discussion only and do not imply nomenclatural changes; such cases will be directed to ICZN for decision.

Authors of nominal taxa based on Forsskål’s descriptions are listed in Tab. 1.

For the discussion of Turkish fish species and their local names, Fricke et al. (2007) is used as a standard reference. Some Arabic vernacular names as used by Forsskål are given in modern Arabic characters by Bahyeldin (2002). Arabic characters of the quotations are not used in the present paper, but are replaced by ‘[,] Arabic name’. Maltese fish names follow Anonymous (2007b).

Documents by C. Niebuhr were examined in the Universitybibliothek der Christian-Albrechts-Universität Kiel (Signature ‘Cod. MS. KB 314 – Niebuhr Nachlass’).

Geographical coordinates of frequently mentioned localities are listed in Tab. 2.

### Tab. 2. Geographical coordinates of frequently mentioned localities.

<table>
<thead>
<tr>
<th>Country</th>
<th>Locality</th>
<th>Coordinates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Egypt</td>
<td>Alexandria</td>
<td>31°12'N 29°54'E</td>
</tr>
<tr>
<td>Egypt</td>
<td>As-Suways</td>
<td>29°58'N 32°33'E</td>
</tr>
<tr>
<td>Egypt</td>
<td>Dumi'at</td>
<td>31°25'N 31°48'E</td>
</tr>
<tr>
<td>France</td>
<td>Marseille</td>
<td>43°18'N 5°22'E</td>
</tr>
<tr>
<td>Malta</td>
<td>La Valletta</td>
<td>35°54'N 14°31'E</td>
</tr>
<tr>
<td>Saudi Arabia</td>
<td>Jeddah, Juddah</td>
<td>21°30'N 39°12'E</td>
</tr>
<tr>
<td>Turkey</td>
<td>Izmir</td>
<td>38°25'N 27°09'E</td>
</tr>
<tr>
<td>Turkey</td>
<td>Istanbul</td>
<td>41°01'N 28°58'E</td>
</tr>
<tr>
<td>Yemen</td>
<td>Al-Luhayya</td>
<td>15°42'N 42°42'E</td>
</tr>
<tr>
<td>Yemen</td>
<td>Al-Mukhā</td>
<td>13°19'N 43°15'E</td>
</tr>
</tbody>
</table>

### 3 Authorship and availability of Forsskål’s fish species

A total of 324 taxa in 114 families were treated by Niebuhr (1775a). Among these, a total of 153 new species (90 valid), and 5 new genera (all valid), are described. 26 additional nomina nuda were listed. A total of 126 names described in Niebuhr (1775a) are available, while 49 names are not available; 22 of these were subsequently made available.

A major problem is that Niebuhr (1775a) is not consistently binomial, due to errors included by Fabricius (see below). Applying the Code strictly (ICZN, Art. 11.4), it would have to be rejected. However, parallel to the case of the botanical volume (Forsskål in Niebuhr 1775b; see Fris et al. 1984, Greuter 1984), this would be disastrous for the stability of nomenclature, as numerous species would have to change their names. The primary aim of the Code is stability of nomenclature (see ICZN, preamble); Art. 11.4 is not meant to weaken this stability. Therefore, I do not advise to follow Art. 11.4 strictly in the case of Forsskål in Niebuhr’s work, but to consider the work as mainly binominal, and to ignore the few non-binominal cases as errors which were not intended to be published as such, at least by Forsskål.

Forsskål’s manuscript was far from ready for publication (Hansen 1965: 314–315). He only had individual, small pieces of paper with field notes in minuscule writing intended for his own use (Hansen 1965: 314–315; P. Provencal, Arhus, personal communication, Jan. 2007). Niebuhr (1792: 310–311) wrote: “After my return to Europe, I was intrusted with the task of publishing my friend’s [Forsskål’s] posthumous papers. I then discovered a new loss which natural history had suffered by his death. He had been accustomed to write down his observations on small detached pieces of paper, which could not easily be preserved together. It is true, I found 1800 of these billets, which I endeavoured to reduce into order. But I could not help inferring from the chasms here and there, that many of them were lost. Whether it be or be not so, I have, however, presented to the public all that I could recover, in two Latin works, intitled, Descriptiones Animalium, 4to Hafnie, 1775 [Niebuhr 1775a]; and Flora Arabica, 4to, ib. 1775 [Niebuhr 1775b]. These two works, written in Latin,
and in the manner and arrangement of *Linnaeus*, are intended particularly for the use of the learned naturalist. To gratify readers of all classes, I shall here insert the most curious particular of the information contained in those works, and such as will serve to give the best ideas of the productions, common or peculiar, of the countries which we traversed. Although natural history was not my province, I had occasion to observe transiently many things respecting it. I shall, therefore, intermingle my own remarks, without distinguishing them as such; for the greater part of the whole is Mr Forskal’s.” *Niewehr*, who as an engineer was not familiar with zoological systematics, and knew only German and Danish, but very little Latin and no Swedish, paid an enormous salary to an adviser on natural history, who had the difficult task of interpreting the meaning of *Forskal’s* notes, with many Arabic names in both Arabic and Latin letters (*Provençal* 2002), some scientific names, other local names, diagnoses and descriptions. He apparently confused or misinterpreted some of them; or wanted to describe new species where *Forskal’s* descriptions were not yet ready, and deliberately used the Arabic names as species names, which were only intended by *Forskal* as a proxy to be later replaced by a Latin equivalent (as described for the example of *Abu-defduf* by *Jordan & Evermann* 1917: 33). However, there are obviously numerous misinterpretations and switching of names into the wrong column. The adviser was a strange man, and *Niewehr* was not really happy with his work (*Niewehr* 1817: 50–51); he was, however, able to translate *Forskal’s* notes in Swedish into Latin language, and sort and copy the Latin parts of the diagnoses and descriptions. *Niewehr* was never able to check if the work of the adviser was correct.

Though *Niewehr* never published or mentioned the name of the adviser, a letter indicating his identity was found by the author of the present paper in *Niewehr’s* documents in the archive of the library of the Christian-Albrechts-Universität Kiel. *Forskal’s* travel itinerary was translated into German by *Johann Christian Fabricius* (*Fabricius* 1776a), according to a letter by *Fabricius* dated 16 Jan. 1776 (*Fabricius* 1776b). This letter is a humble writing where *Fabricius* repeatedly expressed his hopes that this work would please *Niewehr*, in spite of the fact that the previous work did not. This is a strong evidence for *Fabricius’s* earlier work on *Forskal’s* manuscript notes and compilation of the ‘Descriptiones Animalium’ (*Niewehr* 1775a), a work which did not please *Niewehr* the year before. *Fabricius*, however, had been a logical choice, as he was the only German speaking *Linnaeus* scholar who, living in Copenhagen during the winters of 1772–1775, was fluent in Danish and Swedish; this was easiest for *Niewehr*, who was only able to talk and correspond in German and Danish on his own account, and needed a translator for letters in any other language. *Fabricius* had previously (in 1764) worked with insect material in the *Forsskal* collection (*Latreille* 1808: 401; *Hope* 1845: III), which made him seem fit for the task of revising *Forskal’s* natural history manuscripts. Later, *Niewehr* found out that *Fabricius* was a ‘strange fellow’ (*Niewehr* 1817: 50–51), who apparently did not take much time in the task in spite of his high salary, and was probably more interested in his own scientific work on insects rather than the translation and compilation of *Forskal’s* manuscript notes on fishes and other animals. The German translation of *Forskal’s* travel itinerary (*Fabricius* 1776a) was neither well done, with a barely readable handwriting and many crossing-outs, and *Fabricius* doesn’t seem to have wasted too much time on it either.

*Johann Christian Fabricius* (Fig. 3) was born in Tønder/Denmark on 7 January 1745; he went to school in Altona (Hamburg) (*Hope* 1845: I). *Fabricius* studied natural history in Copenhagen and Uppsala; as a scholar of *Linnaeus*. From 1769—1775, Fabricius was extraordinary professor at the University of Copenhagen, spending the winters in Copenhagen and the summers in London (*Hope* 1845: VIII). In 1775, he was appointed as professor of natural history, economics and finance at Kiel University, and moved to Kiel. Again, he spent winters in Kiel and summers in Paris and London. *Fabricius* was one of the founders of entomological systematics, and published several important works on the subject, including a general classification (*Fabricius* 1792–1794). He died in Kiel on 3 March 1808.

*Forsskal’s* natural history notes were not intended to be published in this provisional state, but merely to form the basis of future research and editing. Unfortunately, they were published in a crude and unedited way, and nu-

![Fig. 3. Johann Christian Fabricius, portrait (from Hope 1845).](image-url)
umerous errors and misinterpretations were included; even
the arrangement of the material does not follow a common
logic, but is heterogeneous and can easily be misinter-
preted (Hansen 1965: 314–315). While the botanical de-
scriptions and identifications were pretty accurate (Friis
1984), and Forsskål already distinguished numerous new
families, genera and species, the fish names and descrip-
tions were rather crude, needing further study, and Forsskål frequently misidentified Linnaean species judging
from the identifications for Turkish common names, and
from the descriptions of specimens from Marseille.

The authorship of the names is a complicated question.
A key to this is the usage of Latin or Arabic names as spe-
cies names. Niebuhr (1775a: 16) wrote in his introduction
that Forsskål intended to give Arabic names transcribed
(types in italics) and in their original version. In the index,
species names were given inconsistently, like the example
of ‘Perca ROGAA; subnigra’. This means, that the genus is
Perca; ‘rogaa’ is the Arabic name; and ‘subnigra’ was
originally meant as the species name. Though authors
have used Perca rogaa as the species name, it might in
fact have been Perca subnigra (with ‘rogaa’ as the Arabic
name). As a rule, Forsskål always used a Latin or Greek,
or at least Latinised name when he intended to give a sci-
centific name for a species, following Linnaeus’s (1758)
example; the Arabic names are only an additional infor-
amation on local names. If there is no Latin/Greek name
available, then Forsskål was not sure about the identity of
the species and only identified the genus, given the local
Arabic name in addition, to work on the problem at home
and later eventually select a Latin or Greek scientific
name. It is therefore concluded that Latin or Greek species
described in Niebuhr (1775a) were selected by Forsskål
himself, while the use of Arabic or other local names is due to Fabricius’s erroneous usage of these sub-
stitutes as species names.

Neither Forsskål nor Fabricius in Niebuhr usually
gave reference to previous authors. If they used Linnaean
names, we can be certain that they knew them, because a
copy of Linnaeus (1758) was the standard equipment of a
natural history expedition in the late 18th century, and
Forsskål (a scholar of Linnaeus) and Fabricius in Niebuhr
had it available as well (see Niebuhr 1775a: 18). Linnaean
names used by Forsskål cannot be considered as independ-
dent descriptions even if dealing with different species; in
the latter case, they are misidentifications. Numerous such
misidentifications were found in Turkish species where local names are given, which are species-specific even in
closely related commercial species and can now be used to
identify the species.

Authorship is defined by ICZN, Art. 50. Unfortunate-
ly, Art. 50.1 is not unambiguous. From the sentence ‘If a
work is by more than one person but it is clear from the
contents that only one of these is responsible for the name
or act, then that person is the author; otherwise the author
of the work is deemed to be the author of the name or act’
would follow that Niebuhr should be the author. Art. 50.1
strongly emphasises the ‘Contents’ of the work. The prob-
lem here is that the person ‘who first published the work’
is here not identical with the author of the names, and nei-
ther with the person who provided the field data basis for
the description; these are often three different persons, or
groups of persons. The ‘person who first publishes the work’ is clearly Niebuhr; the authorship cannot be solved
from the ‘Contents’, as not only Fabricius was not men-
tioned, but Niebuhr also states an authorship (which here
means field data source) mixed between himself and
Forsskål (Forsskål’s contribution is estimated at
50–60%); also included were names of Maltese fishes
provided by an anonymous Maltese scientist. The third
sentence of Art. 50.1 ‘If the author, or the person who pub-
lishes the work, cannot be determined from the contents,
then the name or act is deemed to be anonymous’, there-
fore implies an anonymous authorship. As we meanwhile
know the authors from other sources, I do not consider this
advisable.

The descriptions provided by Forsskål and Niebuhr
were far from ready for publication; they were merely raw
field data, on tiny pieces of paper in minuscule, barely
readable handwriting. The mentioning of Arabic names in
Arabic letters and in Roman transliteration was not a de-
cision of naming species as such, but was part of the royal
order for the expedition. Many such names were indicated
as ‘Arab.’ (meaning Arabic), and often several names were
given for one item. Fabricius was much more than a paid
secretary to write the manuscript down; it was up to him
to make decisions which items to describe as new species.
In some cases, Forsskål gave the scientific names and
thus decided a taxon should be described as a new spe-
cies; then I agree with Forsskål as the author of the taxon.
In many other cases, he left the scientific name open, and
it was up to Fabricius to decide a description as new spe-
cies, and to add the Arabic or other local name as scien-
tific name. Most of the descriptions as we see them in the
manuscript are the work of Fabricius, who did extensive
research, though probably not seeing the specimens him-
self (however, we cannot be certain about this either, as
Fabricius had access to Forsskål insect material from the
same collection at that time, provided by Ascanius); it
took him about three years to work on these. In some
cases, we know that Fabricius did additional literature
research on papers which were not yet available to
Forsskål.

As a decision to change authorship on a broad scale
would be premature in the present paper, I here leave the
authorship generally in the status quo, as “Forsskål in Nie-
buhr, 1775”, and discuss the nomenclatural situation after-
wards; no nomenclatural changes should arise from this
paper in such cases, unless the case has been subsequently decided by the International Commission on Zoological Nomenclature.

It was assumed that Brünnich (1768) might have used Forskål material from Marseille for his Ichthyologia Massiliensis; however, as Forskål’s fish parcels and manuscript were unavailable at that time, and were only re-opened in 1772, as Brünnich wrote his ‘Ichthyologia Massiliensis’ while on visit to Vienna (Bru¨nnich 1768: XVI), and as no reference is given to either Forskål or his material or the Copenhagen collection at all, it can be concluded that Brünnich’s work is independent of Forskål’s studies on fishes from Marseille.

Several later authors, however, used the work of Niebuhr (1775a) to interpret, redescribe or rename fish species. These include Boussonet (1782), Bonnaterre (1788), Gmelin (1789), Walbaum (1792), Lacépède (1798–1803), Bloch & Schneider (1801), Geoffroy Saint-Hilaire (1809, 1827), Cuvier (1819), Rüppell (1828–1830, 1835–1838), Cuvier & Valenciennes (1835), Bleeker (1862), and Klunzinger (1871). Forskål’s work is of especial interest to science, as it not only includes the first known Red Sea fish fauna, but also the first fish faunal list from Malta, and the first list of marine fishes of western Turkey.

Though previously all taxa were attributed to the authorship of Forskål, he is only the author of 68 available new taxa, while Fabricius authored 67 (opinion of the present paper); 22 taxa were subsequently made available by Bath, Bleeker, Bloch & Schneider, Bonnaterre, Cuvier, Fourmanoir & Güézé, Gmelin, Lacépède, Rüppell and Walbaum. Three species require obligatory changes of their names, 47 additional species require changes of authorship. Such cases cannot be decided in the present paper, but will be referred to the International Commission on Zoological Nomenclature for decision (see above). In 13 cases, where commonly used species names are threatened by unused names published in Niebuhr (1775a), applications to the International Commission on Zoological Nomenclature are required to stabilise the current usage.

4 Fish taxa described by Forskål and Fabricius in Niebuhr (1775a)

Petromyzontidae – Northern lampreys

Petromyzontidae, indet.


Locality: “Melita” (La Valletta/Malta).

Remarks: This record, a name only, is based on either of the two Mediterranean species of the family, Petromyzon marinus Linnaeus, 1758 or Lampetra fluviatilis (Linnaeus, 1758); as no diagnosis or local name was given, it cannot be assigned to generic or species level.

Scyliorhinidae – Cat sharks

Scyliorhinus canicula (Linnaeus, 1758)


Locality: “Melita” (La Valletta/Malta). Maltese name: “Il rufet ta”.

Remarks: This record is based on Squalus catulus Linnaeus, 1758, a junior synonym of Squalus canicula Linnaeus, 1758, now named Scyliorhinus canicula (Linnaeus, 1758).

Ginglymostomatidae – Nurse sharks

?Nebrius ferrugineus (Lesson, 1831)


Type locality: – (Red Sea).

Genus name: Squalus.

Species name (Forskål): –; (Fabricius in Niebuhr): kumal.

Arabic name (Latinised, Forskål): Kumal.

Remarks: In his draft, Forskål listed this species as an unidentified Squalus with the local name ‘kumal’, but did not decide if this was an undescribed species at all. We cannot be certain if the data source for this description was by Forskål or Niebuhr or both; the description was compiled by Fabricius. Fabricius used the Arabic name as a species name and added a diagnosis. The name would therefore be available as Squalus kumal Fabricius [ex Forskål] in Niebuhr, 1775; it was considered as valid by Bonnaterre (1788: 13). Unfortunately, Squalus kumal is most probably a senior synonym of the commonly used name Nebrius ferrugineus (Lesson, 1831). The species was considered as valid by Walbaum (1792: 523). As the name Squalus kumal has not been used otherwise, it is rejected in accordance with Art. 23.2 and the preamble of ICZN; an application to the International Commission on Zoological Nomenclature will be needed to retain the name Scyllium ferrugineum Lesson, 1831 for this species, which is considered to be valid, with the currently used name Nebrius ferrugineus (Lesson, 1831).

The species was subsequently named Squalus kamal by Bloch & Schneider (1801: 138, under ‘species non determinanda’), which is not an independent species description, but a spelling error for Squalus kumal.

Lamnidae – Mackerel sharks

Carcharodon carcharias (Linnaeus, 1758)


Locality: “Melita” (La Valletta/Malta). Maltese name: “Il gadol”.

Remarks: This is a name only (nomen nudum), listed as Squalus lamia Forskål in Niebuhr, 1775; this name is not available, as it was neither accompanied by a diagnosis nor a description. From the name ‘lamia’, which is the local Italian name for Carcharodon carcharias, it can be concluded that this record may have been based on Carcharodon carcharias (Linnaeus, 1758). The species was subsequently described as Carcharias lamia Rafinesque-Schmaltz, 1810 (Rafinesque-Schmalz 1810: 44), which is a junior synonym of Carcharodon carcharias as well. This species, however, may have been confused with the basking shark Cetorhinus maximus (Gunnerus, 1765), which has the actual Maltese vernacular name ‘Gadoll’ (Anonymous 2007b).
**Triakidae – Hound sharks**

?Mustelus sp.

Fabricius [ex Forsskål] in Niebuhr (1775a: X): “20. [SQUALUS] d) KELB EL BAHR. i.e. canis marinus.”

Type locality: – (Alexandria, Al-Iskandarlyah/Egypt, Mediterranean Sea).

Genus name: Squalus.

Species name (Forsskål): –; (Fabricius in Niebuhr): kelb el bahr.

Arabic name (Latinised, Forsskål): Kelb el baahr.

Remarks: In his draft, Forsskål treated this as a species of *Squalus* which was called ‘Kelb el Baehr’, but was considered identical with *Canis marinus* (or *Squalus canis marinus*?). He did not decide if this was an undescribed species at all. We cannot be certain if the data source for this description was by Forsskål or Niebuhr or both; the description was compiled by Fabricius. Fabricius used ‘kelb el baahr’ as species name, but *Squalus kelb el baahr* Fabricius [ex Forsskål] in Niebuhr, 1775 is not available because the species name is not binominal (ICZN, Art. 5), because the name is not accompanied by a diagnosis or by distinguishing characters, and because it is described in synonymy.

*Mustelus* sp.


Locality: “Melita” (La Valletta/Malta). Local name: “Il Mustil- la”.

Remarks: The species name ‘mustela’ was erroneously listed under *Petroemyzon lampetra*. This was obviously an error by Fabricius in Niebuhr (1775a), who confused the two species and switched lines. As the name ‘mustela’ is just a listing of the name, the record cannot be confirmed and assigned to species level; it could have been based on either *Mustelus asterias* Cloquet, 1821, *Mustelus mustelus* (Linnaeus, 1758), or *Mustelus punctulatus* Risso, 1827.

**Carcharhinidae – Requiem sharks**

Carcharhinidae, indet.


Type locality: “Djidde” (Jeddah, Juddah/Saudi Arabia).

Genus name: Squalus.

Species name (Forsskål): –; (Fabricius in Niebuhr): carebar.

Arabic name (Latinised, Forsskål): Carebar.

Remarks: This species name is found in the listing of *Echeneis neucrates* (neucrates) as its host; no diagnosis is given, so the name is a nomen nudum and not available. The author is Fabricius [ex Forsskål] in Niebuhr; the correct name would be *Squalus carebar* Fabricius [ex Forsskål], in Niebuhr, 1775. It was not included in Eschmeyer (2007). The species is un-identifiable within the family Carcharhinidae.

**Carcharhinus melanopterus** (Quoy & Gaimard, 1824)


Forsskål in Niebuhr (1775a: 20): “19. SQUALUS CARCHARIAS. (Arab. Gersch vel Kersch […, Arabic name]. Ons. Djiddæ (Arab. name) due Species simillimae; his tantum notis invicem distinguenda). Minor: dentibus microscopio inspectis, …” (see also below under *Negaprion acutidens*).

Type locality: “Djidde” (Jeddah, Juddah/Saudi Arabia).

Genus name: Squalus.

Species/subspecies name (Forsskål, Fabricius in Niebuhr): carcharias minor.

Arabic names (Latinised, Forsskål, Fabricius in Niebuhr): Al-ka, Aæas.

Remarks: Forsskål in Niebuhr (1775a: 20) stated under the heading of *Squalus carcharias*, that at Jeddah two similar species occur, namely minor and major. The procedure of describing a new species under the heading of another is unusual; on p. VIII, he treats the two as varieties, but on p. 20 explicitly as separate species. Both of them are accompanied by diagnoses and valid available taxa of the species group; I here regard the two as subspecies. In the case of *minor*, the available name is *Squalus carcharias minor* Forsskål in Niebuhr, 1775. The species was considered as valid as *Squalus (Carcharias) minor* by Walbaum (1792: 514). This is an unused senior synonym of *Carcharias melanopterus* Quoy & Gaimard, 1824, with the frequently used common name *Carcharhinus melanopterus*. According to ICZN, the unused older name can be disregarded. In order to stabilise the current usage of the species name, a petition to the International Commission on Zoological Nomenclature is needed to suppress the name *Squalus carcharias minor*.

*Negaprion acutidens* (Rüppell, 1837)

Forsskål in Niebuhr (1775a: VIII): “19. SQUALUS CARCHARIAS. Gersch. […, Arabic name]. β) MAJOR. Zyfa. […, Arabic name]”.


Type localities: “Djidde” (Jeddah, Juddah/Saudi Arabia); “Lo- haje” (Al-Luhayya/Yemen).
Genus name: *Squalus.*
Species/subspecies name (Forsskål, Fabricius in Niebuhr): *Squalus car-Charias major.*

Arabic names (Latinised, Forsskål): Ziyfa, Aeas (Lohaja), Jecore, Sife; (Fabricius in Niebuhr): Aka, Aeas.

Remarks: Forsskål in Niebuhr (1775a: 20) stated under the heading of *Squalus car-Charias,* that at Jeddah two similar species occur, namely *minor* and *major.* The procedure of describing a new species under the heading of another is unusual; on p. VIII, he treats the two as varieties, but on p. 20 explicitly as separate species. Both of them are accompanied by diagnoses and are available taxa; I here regard the two as subspecies. In the case of *major,* the available name is *Squalus car-Charias major* Forsskål in Niebuhr, 1775. It was sub-sequently mentioned as *Squalus (Car-Charias) major* by Walbaum (1792: 514); this is not an independent subspecies/variety description as assumed by Eschmeyer (2007). *Squalus car-Charias major* Forsskål in Niebuhr, 1775 is apparently an unused senior synonym of *Car-Charias acutidens* Rüppell, 1837 (Rüppell 1837: 65, pl. 18, fig. 3), with the frequently used name *Negaprion acutidens* (Rüppell, 1837). To retain the latter name, and suppress its unused senior synonym, will require a petition to the International Commission on Zoological Nomenclature.

Sphyrnidae – Hammerhead sharks

*Sphyra* sp.


Locality: “Melita” (La Valletta/Malta). Local name: “Il Mar-sel”.

Remarks: This is a name only in a list, and not assignable to species; the record could have been based on either *Sphyra tudes* (Valenciennes, 1822) or *Sphyra zy-gaena* (Linnaeus, 1758).

*Sphyra mokarran* (Rüppell, 1837)


Locality: – (Red Sea); “Mascat” (Muscat/Oman, 23°37’N 58°35’E). “Rarum ad littora Arabiae.”

Arabic names (Latinised, Forsskål, Fabricius in Niebuhr): Kor-nae, Mokarran, Abu kott.

Remarks: This is a misidentification of *Sphyra zygaena* (non Linnaeus, 1758). The locality ‘Mascat’ and Muscatese local name was evidently added by Niebuhr, as Forsskål never visited that city. This species was later described as *Zygaena mokarran* by Rüppell (1837: 66–67, pl. 17, fig. 3).

Oxynotidae – Rough sharks

*Oxynotus centrina* (Linnaeus, 1758)


Locality: “Melita” (La Valletta/Malta).

Dalatidae – Kitefin sharks

*Elasmobranchius spinax* (Linnaeus, 1758)


Locality: “Melita” (La Valletta/Malta). Local Maltese names: “Il Chelp”, “Il Babar”.

Remarks: A note by Fabricius [ex Anonymous, Forsskål] in Niebuhr (1775a: XVIII) states that this species is identical with the species named by the Arabs ‘Kelb el Bahr’. However, Fabricius [ex Forsskål] in Niebuhr (1775a: X) states that ‘Kelb el Bahr’ is identical with *Squalus canis marinus,* which is *Gal-eorhinus galeus* (Linnaeus, 1758). Apparently, Fabricius [ex Forsskål] in Niebuhr (1775a: XVIII) missed a species name here, and added the comment on ‘Kelb el Bahr’ to the wrong species name.

Squatinae – Angel sharks

*Squatina* sp.


Locality: “Melita” (La Valletta/Malta).

Remarks: This is a record of the Linnaean species *Squalus squatina;* it cannot be assigned to species level, as it could have been based on either *Squatina aculeata* Cuvier [ex Duméry], 1829, *Squatina oculata* Bonaparte, 1840, or *Squatina squa-tina* (Linnaeus, 1758).

Torpedinidae – Torpedo electric rays

*Torpedo* torpedo (Linnaeus, 1758)


Localities: “In archipelago” (Greek or Turkish islands in the Aegean Sea); “Melita” (La Valletta/Malta).

Remarks: This record is based on *Torpedo torpedo* (Linnaeus, 1758); the other references by Forsskål in Niebuhr (1775: VIII, 15–16) are based on a misidentification of *Malapertu-rus electricus.* The name *Torpedo* of Forsskål in Niebuhr (1775a) cannot be considered as a new genus description, but is linked as a species name to the genus *Raja.* The first available description of the generic name *Torpedo* is by Duméry (1806).

Pristidae – Sawfishes

*Pristis* sp.


Localities: “Djiddæ” (Jeddah, Juddah/Saudi Arabia); “Lohajæ” (Al-Luhayya/Yemen).

Genus name: *Squalus.*
Species/subspecies names (Forsskål): *pristis;* (Fabricius in Nie-buhr): *pristis abu minschar or pristis schækera.*

Arabic names (Latinised, Forsskål): Abu Minschar, Schækra.

Remarks: In his draft, Forsskål listed this species as *Squalus pristis* Linnaeus, 1758, together with two local Arabic names. He did not decide if this was an undescribed species at all. We cannot be certain if the data source for this description was by Forsskål or Niebuhr or both; the description was compiled by Fabricius. Fabricius in Niebuhr used the Arabic name like subspecies names; however, as *abu minschar* is consisting of two words, it cannot be considered as an available subspecies name. Also, both species/subspecies names *Squalus pristis abu minschar* Fabricius [ex Forsskål] in Nie-
buhr, 1775 and *Squalus pristis schaeckra* Fabricius [ex Forskål] in Niebuhr, 1775 are given without a diagnosis and are therefore invalid. Both are referable to either *Pristis pectinata* Latham, 1794 or *Pristis zijsron* Bleeker, 1851.

*Pristis pristis* (Linnaeus, 1758)

**Forskål** [ex *Anonymus*] in *Niebuhr* (1775a: XVIII): “*Squalus pristis*.”

Locality: “Melita” (La Valletta/Malta). Local Maltese name: “Il Sija”.

Remarks: The actual vernacular Maltese name is “Sija” (Anonymus 2007b).

**Rhinobatidae** – Guitarfishes

“*Glaucostegus halavi* (Forskål in Niebuhr, 1775)”


**Fabricius** [ex *Forskål*] in *Niebuhr* (1775a: 19–20): “18. RAJA halavi. Arab. [..., Arabic name].”

Type locality: “Diiddæ” (Jeddah, Juddah/Saudi Arabia).

Genus name: *Raja*.

Species name (Forskål): –; (Fabricius in Niebuhr): halavi.

Arabic name (Latinised, Forskal): Halavi

Remarks: In his draft, Forskål treated this species as *Raja* sp. with the Arabic name ‘halavi’. He did not decide if this was an undescribed species at all. We cannot be certain if the data source for this description was by Forskål or Niebuhr or both; the description was compiled by Fabricius. Fabricius in Niebuhr confused species name and Arabic name and used the latter as species name. The name is not binominal in Forskål’s version, but binominal in Fabricius in Niebuhr’s version. Therefore, the authorship would be attributed to Fabricius [ex Forskål] in Niebuhr. The name is accompanied by a diagnosis and description, and would be available as *Raja halavi* Fabricius [ex Forskål] in Niebuhr, 1775. The species was treated as valid since Bonnaterre (1788: 5) and Walbaum (1792: 535); the actual name would be *Glaucostegus halavi* (Fabricius [ex Forskål] in Niebuhr, 1775) (see also Eschmeyer 2007), with the authorship pending a decision of ICZN.

*Rhinobatus djiddensis* (Forskål in Niebuhr, 1775)


**Forskål** in *Niebuhr* (1775a: 18–19): “17. RAJA *djidensis*: cauda pinna biloba; oculeorum ordine initio dorsi triplici; dein simplici; pinna dorsi prima supra pinnas ventrales.”

Type localities: “*Djiddæ* in Mari rubro” (Jeddah, Juddah/Saudi Arabia); “Peribehit, illam alia non frequentare litora quam Arabiae Hedsjâs; haud vero ad Sué̂t” (Suez, As-Suways/Egypt) “vel Mochham” (Al-Mukhâ/Yemen) “videri; quod vix crediderim, quum mihi Lohaje” (Al-Luhayya/Yemen) “obieniebat.”

Genus name: *Raja*.

Species name (Forskål): –; (Fabricius in Niebuhr): djiddensis.

Arabic names (Latinised, Forskal): Rget; (Fabricius in Niebuhr): Rget, Bokhât (Lohaja), Aærâb.

Remarks: This species was described binominally with a valid scientific name by Forskål, with no change by Fabricius in Niebuhr, so the author is Forskål in Niebuhr, and the name is available. It is available as *Raja djiddensis* Forskal in Niebuhr, 1775 (treated as a valid species since Bonnaterre 1788: 5 and Walbaum 1792: 534–535). Bloch & Schneider (1801: 356) misspelled the name as *Rhinobatus djidensis*, and Rüppell (1829: 54–55) as *Rhinobatus djedensis*.

**Rajidae** – Skates

**Rajidae**, indet.

**Forskål** [ex *Anonymus*] in *Niebuhr* (1775a: XVIII): “[*RAJA* mus marinus. (pisces novus)].”

Locality: “Melita” (La Valletta/Malta).

Remarks: This new species name is not binominal (ICZN, Art. 5), and a nomen nudum, as it is neither accompanied by a diagnosis, nor a description or an indication; the name cannot be assigned to a species, and is not available.

**Dipturusbatis** (Linnaeus, 1758)

**Forskål** [ex *Anonymus*] in *Niebuhr* (1775a: XVIII): “[*RAJA* batis].”

Locality: “Melita” (La Valletta/Malta).

**Dasyatidae** – Whiptail stingrays

**Dasyatidae**, indet.


Type localities: “*Djiddæ*” (Jeddah, Juddah/Saudi Arabia); “Suaken” (Sawâkin/Sudan, 19°07'N 37°20'E).

Genus name: *Raja*.

Species name (Forskål): –; (Fabricius in Niebuhr): schoukie.

Arabic name (Latinised, Forskal): Schoukie.

Remarks: Forskål treated this species as an unidentified species of *Raja* with the Arabic name ‘Schoukie’; Niebuhr, however, used the Arabic name as a species name. The name is binominal, accompanied by a diagnosis, and therefore would be available as *Raja schoukie* Fabricius [ex Forskål] in Niebuhr, 1775, with the authorship pending a decision of ICZN. It was considered as valid by Walbaum (1792: 336), and misspelled as *Raja schoukia* by Bonnaterre (1788: 6). The record from Suaken (Sawâkin/Sudan) is not based on a specimen, but on an information either Forskål or Niebuhr probably received in Jeddah. This species is listed as *Raja schoukie* by Bloch & Schneider (1801: 368–369) under ‘species non determinandae’ (undetermined species).

**Dasyatis sp.**


Type locality: “Lohaje” (Al-Luhayya/Yemen).

Genus name: *Raja*.

Species name (Forskål): –; (Fabricius in Niebuhr): arnak.

Arabic name (Latinised, Forskal): Arnak.

Remarks: This is not a misspelling for ‘uarnak’, but a separate species, as noted by Fabricius in Niebuhr (1775a: IX) in the diagnosis of *Raja omn es scherit*. In his draft, Forskål treated this species as an unidentified species of *Raja* with the Arabic name ‘Arnak’. He did not decide if this was an undescribed species at all. We cannot be certain if the data source for this description was by Forskål or Niebuhr or both; the description was compiled by Fabricius. Fabricius, however, used the Arabic name as a species name. The name is binominal, accompanied by a diagnosis and would therefore be available as *Raja arnak* Fabricius [ex Forskål] in Niebuhr, 1775, with the authorship pending a decision of
ICZN. The species was treated as valid by Walbaum (1792: 536) and Bloch & Schneider (1801: 364–365). It is not identifiable within the genus Dasyatis.

Dasyatis pastinaca (Linnaeus, 1758)
Locality: “Melita” (La Valleta/Malta).

Himantura uarnak (Gmelin [ex Forsskål], 1789)

Forsskål in Niebuhr (1775a: 18): “16 b) RAJA. Arab. Uārnak, [..., Arabic name] similis descripte [RAJA sephen], sed tota maculata, spina una vel duplici in cauda, que apterygia.”


Type locality: – (Red Sea).
Genus name: Raja.
Species/subspecies name (Forsskål, Fabricius in Niebuhr): Uārnak.

Remarks: In his draft, Forsskål treated this species as a variety of the Raja sp. with the Arabic name ‘sephen’, but with a different local name ‘uarnak’. Fabricius in Niebuhr did the same and noted ‘Uārnak’ as the local Arabic name; the name ‘arnak’ he used in one version is a separate species (see above). The name is neither available from Forsskål’s nor from Fabricius in Niebuhr’s versions (indicated by italics and is clearly intended to be a local Arabic name rather than a species name, in the version on p. 18 even indicated with ‘Arab.’ as Arabic name). Therefore, the authorship of the name rests with Forsskål (no change in interpretation from Forsskål to Fabricius in Niebuhr), but the name is not available as no scientific species name was given except Raja sephen and a local Arabic name. The first author using the name Raja uarnak in a correct binominal way was Gmelin [ex Forsskål] (1789: 1509–1510), who is therefore the valid author of the species name. A previous author, Bonnaterre (1788: 4) only named this species as “L’Uārnak”, without proposing a scientific name. The currently used name of the species is Himantura uarnak (Gmelin [ex Forsskål], 1789). The species was subsequently mentioned as Raja Uārnak (spelled Raja uarnata in the index on p. 713) by Walbaum (1792: 534, 713); the latter is not an independent species description, but a spelling error.

Himantura uarnak (Gmelin [ex Forsskål], 1789)

Type locality: – (Red Sea).
Genus name: Raja.
Species name (Forsskål): –; (Fabricius in Niebuhr): omm es scherit.

Arabic name (Latinised, Forsskål): Omm es scherit.

Remarks: In his draft, Forsskål treated this species as an unidentified species of Raja with the Arabic name ‘omm es scherit’. He did not decide if this was an undescribed species at all. We cannot be certain if the data source for this description was by Forsskål or Niebuhr or both; the description was compiled by Fabricius. Fabricius in Niebuhr, however, used the Arabic name as species name. As the species name is made up of three words, the name is not binominal and thus not available (ICZN, Art. 5). Eschmeyer (2007) treated this species as available and used the combined name Raja ommescherit, within the family Dasyatidae. This species was subsequently described as Raja scherit by Bonnaterre [ex Forsskål] (1788: 6), which is available; as this name is a junior synonym of and would threaten the frequently used name Himantura uarnak (Gmelin [ex Forsskål], 1789), a petition to the International Commission on Zoological Nomenclature will be necessary to suppress the unused name Raja scherit Bonnaterre [ex Forsskål], 1788. – This species was mentioned with the new name Raja ommescherit by Bloch & Schneider (1801: 368); this, however, cannot be considered as a species description, as Bloch & Schneider listed it under ‘species non determinanda’.

“Pastinachus sephen” (Forsskål in Niebuhr, 1775)

Type locality: “Djiddae in Mari rubro” (Jeddah, Juddah/Saudi Arabia).
Genus name: Raja.
Species name (Forsskål): –; (Fabricius in Niebuhr): sephen.

Arabic names (Latinised, Fabricius in Niebuhr): Saefaen, Syfen, Stif.

Remarks: In his draft, Forsskål treated this species as Raja sp. with the Arabic name ‘sephen’. He did not decide if this was an undescribed species at all. We cannot be certain if the data source for this description was by Forsskål or Niebuhr or both; the description was compiled by Fabricius. Fabricius in Niebuhr confused scientific and Arabic names and used the latter as species name. The name is not binominal in Forsskål’s version, but binominal in Fabricius in Niebuhr’s version (who changed the Arabic name from ‘Saephaen’ or ‘Syfen’ to sephen). Therefore, the authorship would be attributed to Fabricius [ex Forsskål] in Niebuhr. The name would be available as Raja sephen Fabricius [ex Forsskål] in Niebuhr, 1775, with the authorship pending a decision of ICZN. The species was treated as valid since Walbaum (1792: 533–534). This species was re-named Trigon forskali Rüppell, 1829 (Rüppell 1829: 53, pl. 13, fig. 2), which is a junior synonym of Raja sephen.

“Taeniura lyamma” (Forsskål in Niebuhr, 1775)

Type locality: “Ad urbem Lohajam in Mari rubro” (Al-Luhayya/Yemen).
Genus name: Raja.
Species name (Forsskål): –; (Fabricius in Niebuhr): lyamma.

Arabic name (Latinised, Forsskål): Lyamma.

Remarks: In his draft, Forsskål treated this species as Raja sp. with the Arabic name ‘lyamma’. He did not decide if this was an undescribed species at all. We cannot be certain if the data source for this description was by Forsskål or Niebuhr or both; the description was compiled by Fabricius. Fabricius in Niebuhr confused scientific and Arabic names and used the latter as species name. The name is not binominal in Forsskål’s version, but binominal in Fabricius in Niebuhr’s version. Therefore, the authorship would be attributed to Fabricius [ex Forsskål] in Niebuhr. The name would be available as Raja lyamma Fabricius [ex Forsskål] in Niebuhr,
1775, with the authorship pending a decision of ICZN. It was treated as valid since WALBAUM (1792: 533), but misspelled *Raja lymnia* by BONNATERRE (1788: 5), and *Raja lymna* by BLOCH & SCHNEIDER (1801: 365).

**Gymnuridae – Butterfly rays**

*Gymnura altavela* (Linnaeus, 1758)

**Forskål** [ex Anonymus] in *Niebuhr* (1775a: XVIII): “RAJA altavela.”

Locality: “Melita” (La Valletta/Malta).

**Myliobatidae – Eagle rays**

*Myliobatis aquila* (Linnaeus, 1758)

**Forskål** [ex Anonymus] in *Niebuhr* (1775a: XVIII): “[RAJA] aquila.”

Locality: “Melita” (La Valletta/Malta).

**Acipenseridae – Sturgeons**

*Acipenser sturio* Linnaeus, 1758

**Forskål** [ex Anonymus] in *Niebuhr* (1775a: XVIII): “ACIPENSER sturio.”

Locality: “Melita” (La Valletta/Malta).

**Huso huso** (Linnaeus, 1758)

**Forskål** [ex Anonymus] in *Niebuhr* (1775a: XVIII): “[ACIPENSER] huso.”

Locality: “Melita” (La Valletta/Malta).

**Actinopterygii – Ray-finned fishes**

Actinopterygii, incertae sedis

**Forskål** in *Niebuhr* (1775a: XIII): “[105. [CYPRINUS] c) LEUCICUS: Abu grymbi.”

**Forskål** in *Niebuhr* (1775a: 71): “105. CYPRINUS LEUCICUS; (LNN.) cauda subequivuali, P. D. & A. ovatis. . . .”

Material: ZMUC P.261686 (1 dry skin).

Localities: “Djiddæ” (Jeddah, Juddah/Saudi Arabia); “Loheja” (Al-Luhayya/Yemen).

Genus name: *Raja*.

Species names (Latinised, Forskål): *tajara or hoerraeka*.

Remarks: In his draft, Forskål treated this species as an unidentified species of *Raja* with different Arabic names: ‘Tajara’ at Jeddah and ‘Høerraeka’ at Al-Luhayya. He did not decide if this was an undescribed species at all. We cannot be certain if the data source for this description was by Forskål or Niebuhr or both; the description was compiled by Fabricius. Fabricius in Niebuhr, however, used the Arabic name as a species name. The name is binominal, accompanied by a diagnosis and therefore would be available as *Raja mula* Fabr. [ex Forskål] in Niebuhr, 1775, with the authorship pending a decision of ICZN; the species was treated as valid by Bonnaterre (1788: 6) and Walbaum (1792: 536). *Raja mula* is an unused senior synonym of *Raja bonnaterre* Euphrasen, 1790, which is considered as a valid species, with the Arabic name “Mula”, and thus treated this species as an undescribed species at all. We cannot be certain if the data source for this description was by Forskål or Niebuhr or both; the description was compiled by Fabricius. Fabricius in Niebuhr, however, used the Arabic names as two alternative species names, but had only a single diagnosis for them; he did not decide which of the two names to choose as species name. Therefore, we are left with a species name *Raja tajara hoerraeka*, which is not binominal and therefore not available (ICZN, Art. 5). The species was subsequently described as *Raja Tajara* Bonnaterre [ex Forsskål], 1788 (Bonnaterre 1788: 6; treated as valid by Walbaum 1792: 536), which is available, and a senior synonym of *Raja narinari* Euphrasen, 1790. The species is named *Aetobatis narinari* (Euphrasen, 1790) under current usage. To preserve the stability of nomenclature, it will be necessary to petition the International Commission on Zoological Nomenclature to suppress the name *Raja tajara* Bonnaterre [ex Forsskål], 1788.

**Genus name:**

**Type locality:** “Melita” (La Valletta/Malta).

**Remarks:** In his draft, Forskål treated this species as an unidentified species of *Raja* with the Arabic name ‘Mula’, and did not decide if this was an undescribed species at all. We cannot be certain if the data source for this description was by Forskål or Niebuhr or both; the description was compiled by Fabricius. Fabricius in Niebuhr, however, used the Arabic name as a species name. The name is binominal, accompanied by a diagnosis and therefore would be available as *Raja mula* Fabricius [ex Forskål] in Niebuhr, 1775, with the authorship pending a decision of ICZN; the species was treated as valid by Bonnaterre (1788: 6) and Walbaum (1792: 536). *Raja mula* is an unused senior synonym of *Raja narinari* Euphrasen, 1790. The name *Raja mula* is rejected, in accordance with Art. 23.2 and the preamble of ICZN; an application to the International Commission on Zoological Nomenclature will be necessary to retain the name *Raja narinari*, which is considered as a valid species, with the currently used name *Aetobatis narinari* (Euphrasen, 1790).

**Aetobatis narinari** (Euphrasen, 1790)


Type localities: “Djiddæ” (Jeddah, Juddah/Saudi Arabia); “Loheja” (Al-Luhayya/Yemen).

Genus name: *Raja*.

Species name (Forskål): “–; (Fabricius in Niebuhr): mula.”

**Remarks:** In his draft, Forskål treated this species as an unidentified species of *Raja* with two different Arabic names, ‘Tajara’ at Jeddah and ‘Høerraeka’ at Al-Luhayya. He did not decide if this was an undescribed species at all. We cannot be certain if the data source for this description was by Forskål or Niebuhr or both; the description was compiled by Fabricius. Fabricius in Niebuhr, however, used the Arabic names as two alternative species names, but had only a single diagnosis for them; he did not decide which of the two names to choose as species name. Therefore, we are left with a species name *Raja tajara hoerraeka*, which is not binominal and therefore not available (ICZN, Art. 5). The species was subsequently described as *Raja Tajara* Bonnaterre [ex Forsskål], 1788 (Bonnaterre 1788: 6; treated as valid by Walbaum 1792: 536), which is available, and a senior synonym of *Raja narinari* Euphrasen, 1790. The species is named *Aetobatis narinari* (Euphrasen, 1790) under current usage. To preserve the stability of nomenclature, it will be necessary to petition the International Commission on Zoological Nomenclature to suppress the name *Raja tajara* Bonnaterre [ex Forsskål], 1788.

**Cyprinidae – Perch family**

*Cyprinus carpio* Linnaeus, 1758

**Forskål** [ex Anonymus] in *Niebuhr* (1775a: XVIII): “[CYPRINUS carpio].”

Locality: “Melita” (La Valletta/Malta).

**Cyprinus carpio** (Linnaeus, 1758)

**Forskål** [ex Anonymus] in *Niebuhr* (1775a: XVIII): “[CYPRINUS carpio].”

Locality: “Melita” (La Valletta/Malta).

**Myliobatis aquila** (Linnaeus, 1758)

**Forskål** [ex Anonymus] in *Niebuhr* (1775a: XVIII): “[RAJA] aquila.”

Locality: “Melita” (La Valletta/Malta).

**Remarks:** This is a very interesting record of the species from Malta. From records in the early 20th century, the species was known to be endemic to the Caspian Sea, Black Sea and Aegean Sea and adjacent waters. Though the species spawns in fresh water habitats which are not available in Malta, adults of the Aegean Sea population would have been capable of dispersing through the Mediterranean Sea towards Malta. The species may have been more widespread around the eastern Mediterranean in the past. Today, it is critically endangered in Turkish Black Sea (Fricke et al. 2007: 22), and extinct in the Aegean Sea (and the Mediterranean).

**Actinoptygii – Ray-finned fishes**

Actinoptygii, incertae sedis

**Forskål** in *Niebuhr* (1775a: XIII): “[105. [CYPRINUS] c) LEUCICUS: Abu grymbi.”

**Forskål** in *Niebuhr* (1775a: 71): “105. CYPRINUS LEUCICUS; (LNN.) cauda subequivuali, P. D. & A. ovatis. . . .”

Material: ZMUC P.261686 (1 dry skin).

Localities: “Djiddæ” (Jeddah, Juddah/Saudi Arabia); “Loheja” (Al-Luhayya/Yemen).

**Remarks:** This is a misidentification of *Cyprinus leuciscus* (non Linnaeus, 1758) [currently used name *Leuciscus leuciscus* (Linnaeus, 1758)], a species restricted to temperate freshwater habitats of Europe and western Asia; the record is unplaceable within the Actinopterygii. – *Forskål* in *Niebuhr* (1775a: 71) described two varieties of this species; they were, however, not named, except for ‘unus’ (the one) and ‘alter’ (the other). *Cyprinus leuciscus unus* and *Cyprinus leuciscus alter* (as listed by Eschmeyer 2007) cannot be regarded as species names.

**Actinoptygii, incertae sedis**


Locality: “Red Sea.”

**Remarks:** This is an Arabic and a Hebrew name without a genus,
a diagnosis or description. The name is therefore not available as scientific name; it cannot be placed within the Actinopterygii.

Actinopterygii, incertae sedis

**Forsskål [ex Anonymus] in Niebuhr** (1775a: XIX): “*Esox lucius*.”

**Locality:** “Melita” (La Valletta/Malta).

**Remarks:** This is a misidentification of *Esox lucius* (non Linnaeus, 1758), a species restricted to temperate freshwater habitats of the northern hemisphere; the record is unplaceable within the Actinopterygii.

Mormyridae – Elephantfishes

“*Mormyrus kannume* Forsskål in Niebuhr, 1775”

**Forsskål in Niebuhr** (1775a: XIII): “111. MORMYRUS KANNUME; [...] Arabic name] rostro prominente.”

**Fabricius [ex Forsskål] in Niebuhr** (1775a: 74–75): “111. MORMYRUS KANNUME; rostro decurvo, prominente; pinna D. lineari, longitudine corporis dimidii.”

**Type locality:** “DAMIATAE” (Dumyat/Egypt).

**Genus name:** *Mormyrus*.

**Species name** (Forsskål in Niebuhr): *kannume*.

**Arabic name** (Latinised, Forsskål in Niebuhr): *kannume*.

**Remarks:** In his draft, Forsskål used the Arabic name ‘kannume’ as a substitute for a Latin name possibly to be selected. He did not decide if this was an undescribed species at all. We cannot be certain if the data source for this description was by Forsskål or Niebuhr or both; the description was compiled by Fabricius. Fabricius in Niebuhr (1775a) described *Argentinana machnata* as a new species. The name is binominal, accompanied by a diagnosis and description, and would be available as *Argentina machnata* Fabricius [ex Forsskål] in Niebuhr, 1775, with the actual name *Elops machnata* (Fabricius [ex Forsskål] in Niebuhr, 1775), the authorship pending a decision of ICZN. The species was treated as valid since Bonnaterre (1788: 178) and Walbaum (1792: 46–47).

Abulidae – Bonefishes

*Abula glosodonta* (Forsskål in Niebuhr, 1775)

**Forsskål in Niebuhr** (1775a: XIII): “99. ARGENTINA a) glosodonta; lingua tuberculis osseis. börnök [..., Arabic name].”

**Forsskål in Niebuhr** (1775a: 68): “99. ARGENTINA GLOSODONTA; lingua basi tuberculis osseis dentata.”

**Type localities:** “DIHDEE” (Jeddah, Juddah/Saudi Arabia); “LÖHAF” (Al-Luhayya/Yemen).

**Type material:** Syntype: ZMUC P.17152 (dry skin) (listed as holotype by Klausewitz & Nielsen 1965: 25, pl. 36; Möller 2006; Eschmeyer 2007).

**Genus name:** *Argentina*.

**Species name** (Forsskål, Fabricius in Niebuhr): *glosodonta*.

**Arabic name** (Latinised, Forsskål, Fabricius in Niebuhr): *örnök*.

**Remarks:** This species was listed by both Forsskål and Fabricius in Niebuhr in both the index and text as *Argentina glosodonta*. The name is binominal in both versions, accompanied by a diagnosis a description, and is therefore available as *Argentina glosodonta* Forsskål in Niebuhr, 1775. The species is considered as valid since Walbaum (1792: 45–46, *Argentina glosodonta*). *Argentina börnök* Lacepède [ex Forsskål], 1803 (Lacepède 1803: 365–366, 368–369) was described as an unneeded replacement name for *Argentina glosodonta* Forsskål in Niebuhr, 1775; it is a junior synonym, though it was erroneously assigned to *Albula vulpes* (Linnaeus, 1758) by authors.

Anguillidae – Freshwater eels

*Anguilla anguilla* (Linnaeus, 1758)

**Forsskål in Niebuhr** (1775a: XIV): “1. MURLENA a) anguilla. Ägæa, Ar. Tejeban [...] Arabic name], vel Hannaesch.”

**Forsskål [ex Anonymus] in Niebuhr** (1775a: XIX): “MURLENA anguilla.”

**Locality:** “["Smirna et Constantinopolis"]” (Izmir/Turkey; Istanbul/Turkey); Alexandria? (Egypt); “Melita” (La Valletta/Malta).

**Arabic names** (Latinised, Forsskål, Fabricius in Niebuhr): Tæjeban, Hannaesch. Maltese name: “Il Sallura”.

**Remarks:** This is a Linnaean species listed by Forsskål in Niebuhr (1775a), based on *Muraena anguilla* Linnaeus, 1758. The actual vernacular Maltese name is “Sallura” (Anonymous 2007b).
Fröcke, Forsskål Fish Names in Niebuhr

Muraenidae – Moray eels

Echidna zebra (Ahl, 1789)


Locality: “Lohaje” (Al-Luhayya/Yemen); “Djidda” (Jeddah, Juddah/Saudi Arabia).

Genus name: Muraena.

Species name (Forsskål, Fabricius in Niebuhr): ophis.

Arabic names (Latinised, Forsskål, Fabricius in Niebuhr): Far (Al-Luhayya), Uiz (Jeddah).

Remarks: This is a composite species, misidentified in part as Muraena ophis (non Linnaeus, 1758).

Muraena helena Linnaeus, 1758


Locality: “Melita” (La Valletta/Malta). Maltese name: “Il murina”.

Remarks: This is a name only (nomen nudum), and therefore not available; according to the Maltese name, the record has been based on Muraena helena Linnaeus, 1758 (actual Maltese vernacular name “Morina”).

Ophichthidae – Snake eels

Echelus myrus (Linnaeus, 1758)


Locality: “Melita” (La Valletta/Malta).

Ophichthys ophis (Linnaeus, 1758)


Locality: “[Smirna et Constantinopoli]” (İzmir/Turkey; İstanbul/Turkey).

Remarks: This is a composite species, based in part on Muraena ophis Linnaeus, 1758.

Ophisurus serpens (Linnaeus, 1758)


Locality: “Melita” (La Valletta/Malta). Local Maltese name: “Il serpt al báhar”.

Remarks: Muraena serpens marinus Forsskål [ex Anonymus] in Niebuhr, 1775 was described as a name only (nomen nudum), without a diagnosis, description or indication. It is therefore not an available name. The name was erroneously spelled Muraena serpens marinus by Eschmeyer (2007). It is considered to be identical with Ophisurus serpens (Linnaeus, 1758). The actual vernacular Maltese name is “Serpt il-báhar halqu twil” (Anonymus 2007d).

Muraenidae – Pike congers

Muraenox cinereus (Forsskål in Niebuhr, 1775)

Forsskål in Niebuhr (1775a: X): “2. [MURÆNA] b) cinerea; suspecta. Sjæga. [. . ., Arabic name].”


Type locality: “Djidda” (Jeddah, Juddah/Saudi Arabia).

Type material: Holotype: ZMUC P.31250 (see Klausewitz & Nielsen 1965: 13, pl. 1; Møller 2006).

Genus name: Muraena.

Species names (Forsskål, Fabricius in Niebuhr): cinerea or tota cinerea.

Arabic names (Latinised, Forsskål, Fabricius in Niebuhr): Sjaeg, Schaega.

Remarks: This species was listed by Forsskål in Niebuhr (1775a: X) as Muraena cinerea, and then later (p. 22) described as Muraena tota cinerea, which is not binominal, but tied by the species code ‘2’ to p. X which is considered as the correct version and therefore available as Muraena cinerea Forsskål in Niebuhr, 1775. This species was subsequently described as Muraena arabica Bloch & Schneider [ex Forsskål], 1801 (Bloch & Schneider 1801: 488) as an unneeded new name for Muraena cinerea Forsskål in Niebuhr, 1775; Muraena arabica is a junior synonym. The currently used name for the species is Muraenox cinereus (Forsskål in Niebuhr, 1775) in the family Muraenidae. – This species was transferred to the genus Conger under the name Conger cinereus by Rüppell (1830: 115–116, pl. 29, fig. 1), which was not intended as an independent species description, but was a misidentification of Muraena tota cinerea of Forsskål, as explicitly noted in the synonymy (Rüppell 1830: 115). The name Conger cinereus Rüppell, 1830 is therefore not available. Génther (1870: 38) treated the congrid species under the name Conger marginatus Valenciennes in Eydoux & Souleyet, 1850, with both Forsskål’s Muraena tota cinerea and Rüppell’s Conger cinereus as questionable synonyms. The first available version of the name is Conger cinereus Klunzinger [ex Rüppell], 1871 described by Klunzinger (1871: 607–608), where Rüppell’s misidentification was treated as valid, with Rüppell as the author. This, however, causes serious problems, as Conger flavipinnatus Bennett, 1832, Conger marginatus Valenciennes in Eydoux & Souleyet, 1850, Conger altipinnis Kaup, 1856, and Conger noordziekii Bleeker, 1857 would all be senior synonyms. As the name Conger cinereus is of prevailing usage, I continue to use this name here, but an application to the International Commission on Zoological Nomenclature will be necessary to conserve this name and suppress the synonyms listed above. The currently used name is Conger cinereus Klunzinger [ex Rüppell], 1871, in the family Congridae. – Forsskål in Niebuhr (1775a: 22) named three varieties from Djiddda, Muraena tota cinerea alba, M. tota cinerea flava, and M. tota cinerea rubra. These are nomina nuda, as neither is accompanied by a diagnosis or indication; the names are not available.

Congridae – Conger eels

Conger conger (Linnaeus, 1758)


Locality: “Melita” (La Valletta/Malta).

Engraulidae – Anchovies

Engraulis encrasicolus (Linnaeus, 1758)


Locality: “Melita” (La Valletta/Malta). Local name: “Il Sardel Sla”.

Stolephorus indicus (Hasselt, 1823)

gentium; utrinque vitta laterali fulva; dorso ceruleo. Vivam non vidi; sed deglutitam a Scombros reperi.”.

Locality: – (Red Sea).
Material: No FORSSKÅL material extant.
Genus name: Clupea.
Species names (FORSSKÅL, FABRICIUS in NIEBUHR): encrasicus or baelama?

Arabic names (Latinised, FORSSKÅL, FABRICIUS in NIEBUHR): Láaf, Belama, Sardin.
Remarks: In his draft, FORSSKÅL used the Arabic name ‘schäleb’ as a substitute for a Latin name, possibly to be selected. He did not decide if this was an undescribed species at all. We cannot be certain if the data source for this description was by FORSSKÅL or NIEBUHR or both; the description was compiled by FABRICIUS. FABRICIUS in NIEBUHR (1775a) described Clupea schaleb as a new species. ESCHMEYER (2007) listed the name erroneously as Clupea schaleh and gave the locality, also erroneously, as ‘Izmir and/or Istanbul, Turkey’. The Arabic name and the diagnosis, however, indicate that the species originated from the Red Sea. The name is binominal, accompanied by a diagnosis, and would be available as Clupea schaleb FABRICIUS [ex FORSSKÅL] in NIEBUHR, 1775, with the authorship pending a decision of ICZN. The name is a senior synonym of Engraulis indicus Hasselt, 1823, which is named Stolephorus indicus (Hasselt, 1823) under current usage. In order to stabilise this frequently used name, a petition to the International Commission on Zoological Nomenclature to suppress the name Clupea schaleb will be needed.

Thryssa baelama (Bloch & Schneider [ex FORSSKÅL], 1801)

Locality: – (Red Sea).
Material: No FORSSKÅL material extant.
Genus name: Clupea.
Species names (FORSSKÅL, FABRICIUS in NIEBUHR): encrasicus or baelama?

Arabic names (Latinised, FORSSKÅL, FABRICIUS in NIEBUHR): Läaf, Belama, Sardin.
Remarks: FORSSKÅL misidentified this species as Clupea encrasicus (non Linnaeus, 1758) in his index, and was undecided in the text whether this was a new species for which he used the substitute name ‘baelama’, or if it was C. encrasicus. Though FABRICIUS in NIEBUHR (1775a) used the name Clupea baelama, encrasicus? in the text, he did not clearly decide if this was a new species or not. Therefore, the name Clupea baelama FABRICIUS in NIEBUHR, 1775 is not available (ICZN, Art. 11.5). GMELIN (1789: 1407) referred to Clupea Baelama in the synonymy of Clupea setirostris; the name is not available from this description either. WALBAUM (1792: 42) copied FORSSKÅL’s description and named the species ‘Clupea baelama an Encrasicos?’, which is not available for the same reason as FORSSKÅL’s description. The first available version of the name is Clupea baelama Bloch & Schneider [ex FORSSKÅL], 1801 (BLOCH & SCHNEIDER 1801: 429). The species is valid within the family Engraulidae, with the currently used name Thryssa baelama (Bloch & Schneider [ex FORSSKÅL], 1801). The species was missspelled Engraulis boelama by KLUNZINGER (1871: 507). BROUSSONET’S (1782: 39–41) description of Clupea setirostris was based in part on the description of Clupea encrasicus, baelama by FABRICIUS [ex FORSSKÅL] in NIEBUHR (1775a). With the lectotype designation by FRICKE (1999: 78), that species was restricted to the currently named Thryssa setirostris (Broussonet, 1782), with Tanna/Vanuatu as the type locality.

Chirocentridae – Wolf herrings

“Chirocentrus dorab (Forsskål in NIEBUHR, 1775)”

Type localities: “Dihdae” (Jeddah, Juddah/Saudi Arabia); “Mochialae” (Al-Mukhā/Yemen).
Genus name: Clupea.
Species name (FORSSKÅL): – (FABRICIUS in NIEBUHR): dorab.
Arabic names (Latinised, FORSSKÅL, FABRICIUS in NIEBUHR): Lysan (Jeddah), Machnat or Dorab (Al-Mukhā).
Remarks: In his draft, FORSSKÅL used the Arabic name ‘dorab’ as a substitute for a Latin name possibly to be selected. He did not decide if this was an undescribed species at all. We cannot be certain if the data source for this description was by FORSSKÅL or NIEBUHR or both; the description was compiled by FABRICIUS. FABRICIUS in NIEBUHR (1775a) described Clupea dorab as a new species. The name is binominal, accompanied by a diagnosis and description, and would be available as Clupea dorab FABRICIUS [ex FORSSKÅL] in NIEBUHR, 1775, with the actual name Chirocentrus dorab (Fabricius [ex FORSSKÅL] in NIEBUHR, 1775), the authorship pending a decision of ICZN. The species was treated as valid by BONNATERRE (1788: 187). Clupea dentex Bloch & Schneider [ex FORSSKÅL], 1801 (BLOCH & SCHNEIDER 1801: 428–429) is a junior synonym of Clupea dorab.

Clupeidae – Herrings

Clupeidae, indet.
FORSKÅL in NIEBUHR (1775a: XVII): “41. CLUPEA a) harengus. Arego.”.
Locality: Western Turkey or Greek Aegean islands.
Remarks: This record is based on a misidentification of Clupea harengus (non Linnaeus, 1758), a species which is restricted to the northwestern and northeastern Atlantic. FORSSKÅL’s material was based on an unidentified clupeid fish species.

Clupeidae, indet.
FORSKÅL in NIEBUHR (1775a: XVII): “43. [CLUPEA] c) Γόνος.”
Locality: Western Turkey or Greek Aegean islands.
Remarks: This is not a valid species group name, as it was given only in Greek characters. The name is neither accompanied by a indication, diagnosis or description, and is not available. It cannot be placed within the family Clupeidae.

Alosa agone (Scopoli, 1786)
FORSKÅL in NIEBUHR (1775a: XVII, part): “42. [CLUPEA] b) alosa. Sarıdélka vel Sarıdélka, Arab. Söğboga. Macula nigra pone branchias; pinnæ D. & C. albide, apice nigre.”.
Locality: “Melita” (La Valetta/Malta).
Remarks: These records are based in part on a name only, in part on a short diagnosis, misidentified as Clupea alosa (non Linnaeus, 1758). The diagnosis clearly refers to Alosa agone.
Judging from the Turkish name, however, other species were included under the name Clupea alosa as well; the name ‘Sardalya’ refers to species of sardines (FRICKE et al. 2007), i.e. Sardina pilchardus (Walbaum, 1792), Sardinella aurita (Valenciennes in Cuvier & Valenciennes, 1847) and Sardinella maderensis (Lowe, 1838).

Ambygaster sirm (Walbaum [ex Forsskål], 1792)
Locality: – (Red Sea).
Material: No FORSKÅL material extant.
Remarks: FORSKÅL in NIEBUHR’s (1775a: XVII) note on Clupea sp. d is the basis for the description of Clupea sirm by WALBAUM [ex FORSKÅL] (1792: 38) as a variety of Clupea harengus, i.e. Ambygaster sirm (Walbaum [ex FORSKÅL], 1792). It is uncertain if the basis of this note was really A. sirm, as judging from the colour description it may well have been Herklotsichthys quadriramculatus (Rüppell, 1837). No type material of Clupea harengus sirm Walbaum [ex FORSKÅL], 1792 is known. It would therefore be advisable to describe a neotype for the species.

Chanidae – Milkfishes
“Chanos chanos” (Forskål in Nieuwburg, 1775)
FABRICIUS [ex FORSKÅL] in NIEBUHR (1775a: 74): “110. MUGIL chanos; pinna dorsis unica; p. caudae utrinque bi-alata.”
Type locality: “DIDDE” (Jeddah, Juddah/Saudi Arabia).
Type material: Holotype: ZMUC P.17154 (1 dry skin) (see KLAUSEWITZ & NIJSEN 1965: 26, pl. 37; MOLLER 2006).
Genus name: Mugil.
Species name (FORSKÅL): – (FABRICIUS in NIEBUHR): chanos.
Arabic name (Latinised, FORSKÅL, FABRICIUS in NIEBUHR): Anged; Turkish name of variety ‘b’: Chanı.
Remarks: In his draft, FORSKÅL used the Turkish name ‘chanı’ as a substitute for a Latin name possibly to be selected for his variety ‘b’. He did not decide if this was an undescribed species at all. We cannot be certain if the data source for this description was by FORSKÅL or NIEBUHR or both; the description was compiled by FABRICIUS. FABRICIUS in NIEBUHR (1775a) confused the two varieties, and described Mugil chanos as a new species for the variety ‘a’. The name is binominal, accompanied by a diagnosis and description, and would be available as Mugil chanos FABRICIUS [ex FORSKÅL] in NIEBUHR, 1775, with the actual name Chanos chanos (FABRICIUS [ex FORSKÅL] in NIEBUHR, 1775), the authorship pending a decision of ICZN. The species was treated as valid since BONNATERRE (1788: 180–181) and WALBAUM (1792: 227–228). It was subsequently re-named Chanos arabcus LACEPÉDE (ex FORSKÅL), 1803 (LACEPÉDE 1803: 395, 396), which is available, but a junior synonym of Mugil chanos. – ESCHMEYER (2007) erroneously gave ZMUC P.17154 as a syntype, and added ZMUC P.17151 as a further syntype. The latter specimen, however, is not a FORSKÅL specimen, but a Denticeps clupeoides Clausen, 1959 from West Africa, collected in 1958, according to the ZMUC database (http://zoologis.nrm.ku.dk/samlinger/vertebrates/dokument3/).
– The Turkish name ‘chanı’ leads to the suspicion that this may be a composite species, based in part on Turkish Mediterranean material which would belong to a different family.

In Turkey, several serranid fish species have the actual name ‘hani’ (FRICKE et al. 2007). For the sake of the stability of nomenclature, I here treat the species as if exclusively based on the Red Sea syntypes, ignoring possible Mediterranean origins of the name.

Cyprinidae – Minnows and carps
“Barbus bynni” (FORSKÅL in NIEBUHR, 1775)
FABRICIUS [ex FORSKÅL] in NIEBUHR (1775a: 71): “103. CYPRI-NUS BYNNI; pinna dorsali radiis 13; tertio crasso, corneo.”
Type locality: “Niloticus” (River Nile/Egypt).
Type material: Neotype: BMNH 1907.12.2.1230 from Nile/Egypt; designation by BANISTER (1973: 27).
Genus name: Cyprinus.
Species name (FORSKÅL): – (FABRICIUS in NIEBUHR): bynni.
Arabic name (Latinised, FORSKÅL, FABRICIUS in NIEBUHR): Byn- ni.
Remarks: In his draft, FORSKÅL used the Arabic name ‘bynni’ as a substitute for a Latin name possibly to be selected. He did not decide if this was an undescribed species at all. We cannot be certain if the data source for this description was by FORSKÅL or NIEBUHR or both; the description was compiled by FABRICIUS. FABRICIUS in NIEBUHR (1775a) described Cyprin- nus bynni as a new species. The name is binominal, accompanied by a diagnosis and description, and would be available as Cyprinus bynni FABRICIUS [ex FORSKÅL] in NIEBUHR, 1775, with the actual name Barbus bynni FABRICIUS [ex FORSKÅL] in NIEBUHR, 1775, the authorship pending a decision of ICZN. The species is considered as valid since WALBAUM (1792: 22–23, Cyprinus Bynni). This name was misspelled as Cyprinus bynni by LACEPÉDE (1803: 490, 530).

Labeo vulgaris Heckel, 1847
FORSKÅL in NIEBUHR (1775a: 71): “104. CYPRINUS NILOTICUS. Arab. Lebès. […] Arabic name].
Locality: “Niloticus” (River Nile/Egypt).
Material: Neotype: BMNH 1907.12.2.1074, as designated by REID (1985: 61); neotype designation invalid, as the species is objectively invalid.
Remarks: This is not an independent new species description, but is based on Cyprinus niloticus Linnaeus, 1758. Though this species was incorrectly treated as valid as Labeo niloticus (Forskål, 1775) by LÉVÈQUE & DAGET (1984: 316) and others, that name is invalid. The first subsequent usage of FORSKÅL’s version of the name Cyprinus niloticus is by GEOFFROY-SAINT-HILAIRE (1809: pl. 9, fig. 2) (description by GEOFFROY-SAINT-HILAIRE 1827: 282–286, Cyprinus niloticus), but this is neither available as it is indirectly based on the Linnaean species. Other authors directly referred to the Linnaean species Cyprinus niloticus (e.g. WALBAUM 1792: 23).
Labeo vulgaris Heckel, 1847 (HECKEL 1847: 303, pl. 20, fig. 3) is the first available name for this species.

Citharinidae – Citharins
Distichodus nefasch (Bonnaterre [ex Forsskål], 1788)
FORSKÅL in NIEBUHR (1775a: 66): “97. b) SALMO NILOTICUS,

Type locality: – (Nile/Egypt).

Remarks: This is not an independent species description, but explicitly refers to Salmo niloticus (non Linnaeus, 1758) of Hasselquist (1762), which is treated by authors as a valid species of characid fishes, with the name Distichodus nitidus (Hasselquist, 1762). This name, however, is not attributable to Hasselquist (1762) as this is a rejected work (see Anonymous (1914, 1956), Melville & Smith (1987: 330)). Furthermore, neither Hasselquist’s nor Forsskål’s version can be considered as an independent new species description, but both are misidentifications of the Linnaean species Salmo niloticus. The first available name for this species is Salmo nefasch Bonnaterre [ex Forsskål], 1788 (Bonnaterre [1788: 169]); the obligatory name is therefore Distichodus nefasch (Bonnaterre [ex Forsskål], 1788). – The species was subsequently described as Salmo aegyptius Gmelin [ex Hasselquist, Forsskål], 1789 (Gmelin 1789: 1386); this is a junior synonym of Salmo nefasch Bonnaterre [ex Forsskål], 1788. The species name was erroneously spelled Salmo aegyptiacus by Walbaum (1792: 83).

Alestidae – African tetrads

Hydrocynus forskahlii (Cuvier, 1819)

Forsskål in Niebuhr (1775a: XIII): “97. SALMO a) dentex. Roschál [..., Arabic name]”.


Locality: – (Nile/Egypt).

Remarks: This is not an independent species description, but explicitly refers to and is a misidentification of Cyprinus dentex Linnaeus, 1758, which has the currently used name Alestes dentex (Linnaeus, 1758). ‘Roschal’ is explicitly meant as the local Arabic name, not as a species or subspecies name. Salmo dentex Hasselquist, 1762 (Hasselquist 1762: 437) considered by Eschmeyer 2007 as not available, as published in a rejected work, see Anonymous (1914, 1956), Melville & Smith (1987: 330), was not an independent species description, but just a new generic allocation of Cyprinus dentex Linnaeus, 1758. The first available name for this species is Salmo roschal Walbaum [ex Forsskål], 1792 (Walbaum 1792: 81–82, as Salmo Roschal), which is based on Forsskål in Niebuhr’s (1775a) description of Salmo dentex. It is a senior synonym of Hydrocyon forskahlii Cuvier, 1819 (Cuvier 1819: 354, pl. 28, fig. 1), which is currently named Hydrocynus forskahlii (Cuvier, 1819) (see Parent in Eschmeyer 2007). In order to preserve stability of nomenclature, a petition to the International Commission on Zoological Nomenclature will be needed to suppress the name Salmo roschal Walbaum [ex Forsskål], 1792.

Mochokidae – Upside-down catfishes

Synodontis clarias (Linnaeus, 1758)


Locality: – (Nile/Egypt).

Remarks: This record is based on the Linnaean species Silurus clarias, which is valid, with the currently used name Synodontis clarias (Linnaeus, 1758). The Pimelodus clarias or ‘Scheilan’ of Geoffroy Saint-Hilaire (1809: pl. 13, figs. 3–4; 1827: 299–300) is not an independent species description, as assumed by Eschmeyer (2007), but is a misidentification of Silurus clarias Linnaeus, 1758 [to which Geoffroy Saint-Hilaire (1827: 299) explicitly referred], which was confused with and based on Synodontis schall (Bloch & Schneider, 1801).

Mallapteruridae – Electric catfishes

Malapterurus electricus (Gmelin [ex Forsskål], 1789)

Forsskål in Niebuhr (1775a: VIII): “14. RAJA a) torped. Raasch. [..., Arabic name]”.

Forsskål in Niebuhr (1775a: 15–16): “14. RAJA torpedo: pinna dorsali adiposa, corpore negro maculato, cirrhis oris sex.”.

Locality: “In Nilo inferiores rarius: mihi obveniebat in pago Benha el asal ad Nilum jacenti” (River Nile, at Bahná/ Egypt, 30°28′N 31°11′E).

Arabic name (Latinised, Forsskål, Fabricius in Niebuhr): Raasch.

Remarks: This record is based on a misidentification of Raja torpedo (non Linnaeus, 1758). The Torpedo torpedo (Linnaeus, 1758) of current usage is a marine species that does not enter brackish water. The species was re-named Silurus electricus (Gmelin [ex Forsskål], 1789) (Gmelin 1789: 1354); it is now considered as valid as Malapterurus electricus (Gmelin [ex Forsskål], 1789).

Plotosidae – Eeltail catfishes

Plotosus lineatus (Thunberg, 1787)


Type locality: “Mochæ” (Al-Mukhâ/Yemen).


Genus name: Silurus.

Species name (Forsskål, Fabricius in Niebuhr): –, Arabic names (Latinised, Forsskål, Fabricius in Niebuhr): Boa, Buja.

Remarks: Eschmeyer (2007) listed the name of this species as Silurus arab Forsskål, 1775, but the first valid description is by Bleeker [ex Forsskål] (1862: 111) as Plotosus arab. ‘Arab.’; however, it is not a species name, but the abbreviation for ‘Arabic’, indicating that ‘Boa’ or ‘Buja’ are the Arabic names. This is clearly intended to be a Silurus sp., not a new species description. Therefore, the name Silurus arab is not available out of Forsskål in Niebuhr’s (1775a) description, but as Plotosus arab Bleeker [ex Forsskål], 1862. Forsskål’s record is based on the species Plotosus lineatus Thunberg, 1787, and Plotosus arab Bleeker [ex Forsskål], 1862 is a junior synonym of that species.

Clariidae – Airbreathing catfishes

Clarias anguillaris (Linnaeus, 1758)


Locality: – (Nile/Egypt).

Remarks: This record is based on the Linnaean species Silurus anguillaris, which is valid, with the currently used name Clarias anguillaris (Linnaeus, 1758).
Schilbeidae – Schilbeid catfishes

Schilbe mystus (Linnaeus, 1758)

Forsskål in Niebuhr (1775a: XVI): “33. SILURUS a) mystus. Arab. Schilbe [..., Arabic name]”.

Locality: – (Nile/Egypt).

Remarks: This record is based on the Linnaean species Silurus mystus, which is valid, with the currently used name Schilbe mystus (Linnaeus, 1758).

Bagridae – Bagrid catfishes

“Bagrus bajad” (Forsskål in Niebuhr, 1775)


Fabricius [ex Forsskål] in Niebuhr (1775a: 66): “95. SILURUS bajad; pinna dorsi postica adiposa; cirrhis 8.”.

Type locality: “In Nilo” (River Nile/Egypt).

Genus name: Silurus.

Species name (Forsskål): – (Fabricius in Niebuhr): bajad.

Arabic name (Latinised, Forsskål, Fabricius in Niebuhr): Bajjad.

Remarks: In his draft, Forsskål used the Arabic name ‘bajad’ or ‘bajjad’ as a substitute for a Latin name possibly to be selected. He did not decide if this was an undescribed species at all. We cannot be certain if the data source for this description was by Forsskål or Niebuhr or both; the description was compiled by Fabricius. Fabricius in Niebuhr (1775a) described Silurus bajad as a new species. The name is binominal, accompanied by a diagnosis and description, and would be available as Silurus bajad Fabricius [ex Forsskål] in Niebuhr, 1775, with the actual name Bagrus bajad Fabricius [ex Forsskål] in Niebuhr, 1775, the authorship pending a decision of ICZN. The name was considered as valid since Walbaum (1792: 569). It was subsequently misspelled Porcus bajad by Geoffroy Saint-Hilaire (1809: pl. 15, figs. 1–2, 1827: 303).

“Forbus docmak” (Forsskål in Niebuhr, 1775)

Fabricius [ex Forsskål] in Niebuhr (1775a: XIII): “94. SILURUS a) docmak; radio osseo. Dogmák. [...] Arabic name]”.

Fabricius [ex Forsskål] in Niebuhr (1775a: 65): “94. SILURUS docmak; pinna dorsali postica adiposa, ani radiis decem, branch. 2 cirrhis octo.”.

Type locality: “In Nilo inferiori ad Deltam” (Nile Delta/Egypt).

Genus name: Silurus.

Species name (Forsskål): – (Fabricius in Niebuhr): docmak.

Arabic name (Latinised, Forsskål, Fabricius in Niebuhr): Dogmak.

Remarks: In his draft, Forsskål used the Arabic name ‘docmak’ or ‘doqmák’ as a substitute for a Latin name possibly to be selected. He did not decide if this was an undescribed species at all. We cannot be certain if the data source for this description was by Forsskål or Niebuhr or both; the description was compiled by Fabricius. Fabricius in Niebuhr (1775a) described Silurus docmak as a new species. The name is binominal, accompanied by a diagnosis and description, and would be available as Silurus docmak Fabricius [ex Forsskål] in Niebuhr, 1775, with the actual name Bagrus docmak (Fabricius [ex Forsskål] in Niebuhr, 1775), the authorship pending a decision of ICZN. The species was considered as valid since Walbaum (1792: 572). The name was subsequently misspelled as Silurus docmac by Bloch & Schneider (1801: 388) and other authors.

Synodontidae – Lizardfishes

Synodus saurus (Linnaeus, 1758)


Locality: “Melita” (La Valletta/Malta).

Remarks: This is not an independent species name, but based on Salmo saurus Linnaeus, 1758; the species was either deliberately or erroneously transferred into the genus Osmerus. Salmo saurus is considered as valid with the currently used name Synodus saurus (Linnaeus, 1758).

Moridae – Deepsea cods

Moridae, indet.


Locality: “Melita” (La Valletta/Malta).

Remarks: These are names only (nomina nuda); they are neither accompanied by diagnoses nor indications, and are therefore not available.

Merlucciidae – Merlucid hakes

Merluccius merluccius (Linnaeus, 1758)


Locality: “Melita” (La Valletta/Malta).

Physidae – Phycid hakes

Ciliata mustela (Linnaeus, 1758)


Locality: “Melita” (La Valletta/Malta).

Gaidropsarus mediterraneus (Linnaeus, 1758)


Localities: “Turc.” (probably both İzmir/Turkey, and İstanbul/Turkey), possibly also at Greek Aegean Sea islands.

Turkish name (Forsskål’s transcription): Djelindsjik balük. Actual Turkish name: Gelincik balığı (Frícke et al. 2007: 65).

Remarks: This species was listed by Forsskål in Niebuhr as Gaidus mediterraneus, which clearly refers to the Linnaean species of this name. However, Fabricius in Niebuhr apparently switched lines and added the diagnosis of Gadus Σαλαρίτις under this heading, which clearly belongs to a different species, namely Salaria basiliscus (Valenciennes in Cuvier & Valenciennes, 1836) (family Blenniidae, see below). The identity of the proper Gaidus mediterraneus is confirmed by its local Turkish name ‘Gelincik balığı’, which is used for the three species of Gaidropsarus occurring in the Sea of Marmara and the Aegean Sea [G. bescayensis (Collett, 1890), G. mediterraneus (Linnaeus, 1758) and G. vulgaris (Cloquet, 1824), see Frícke et al. (2007: 64–65)]; the species which is most common in inshore water and most likely to be found in fish markets is Gaidropsarus mediterraneus.
Gadidae – Cod

Gadidae, indet.

Locality: “Melita” (La Valletta/Malta).
Remarks: This species has been misidentified as Gadus aeglefinus (non Linnaeus, 1758), a species that does not occur south of the Bay of Biscay. The Maltese record cannot be assigned to a species; it is based on either Merlangius merlangus (Linnaeus, 1758), Trisopterus luscus (Linnaeus, 1758) or Trisopterus minutus (Linnaeus, 1758).

Op h i i d a e – Cusk-eels

Ophidiidae, indet.

FORSSK. [ex Anonymus] in NIEBUHR (1775a: XIX): “OPHIDION gryllus.”
Locality: “Melita” (La Valletta/Malta).
Remarks: This is a name only (nomen nudum), and therefore not available; the record could have been based on either Ophidion barbatum Linnaeus, 1758, Ophidion rochei Müller, 1845 or Parophidion vassali (Risso, 1810).

Ophidiidae, indet.

Locality: “Melita” (La Valletta/Malta).
Remarks: The record of the Linnaean species name Gadus barbatus from Malta cannot be assigned to species level; the record could have been based on either Ophidion barbatum Linnaeus, 1758, Ophidion rochei Müller, 1845 or Parophidion vassali (Risso, 1810).

?Brotula multibarbata (Temminck & Schlegel, 1846)

Locality: – (Red Sea).
Genus name: Ophidion.
Species/subspecies name (FORSSK., FABRICIUS in NIEBUHR): –.
Arabic name (Latinised, FORSSK., FABRICIUS in NIEBUHR): Abu gudda.
Remarks: This species was named only to the genus level by FORSSKAL and FABRICIUS in NIEBUHR (1775a). The record most probably refers to Brotula multibarbata (Temminck & Schlegel, 1846), which is regularly found in shallow water in both Saudi Arabia and Yemen.

Lophiidae – Goosefishes

Lophius sp.

FORSSK. [ex Anonymus] in NIEBUHR (1775a: XVIII): “LOPHIUS piscatorius.”
Locality: “Melita” (La Valletta/Malta).
Remarks: This record is a name only, and it cannot be assigned to species level; the record could have been based on Lophius budegassa Spinola, 1807 or Lophius piscatorius Linnaeus, 1758.

Mugilidae – Mullets

Mugilidae, indet.

FORSSKAL in NIEBUHR (1775a: XVI): “[38. MUGIL cephalus] β"

minor: an varieties? Κεφαλόπτερο. Arab. Gbabasji. tempora migrandi observat periodica.”.
Type locality: – (?Turkey; Red Sea).
Type material: No types known. Material may be among ZMUC P.71371 or ZMUC P.71374.
Genus name: Mugil.
Species/subspecies name (FORSSKAL): cephalus minor?
Remarks: This species was listed by FORSSKAL in NIEBUHR as Mugil cephalus minor; FORSSKAL was uncertain if this was a variety of Mugil cephalus. As the name is neither accompanied by an indication, a diagnosis or a description, it is not available as Mugil cephalus minor FORSSKAL in NIEBUHR, 1775.

“Chelon tade (FORSSKAL in NIEBUHR, 1775)”


Type locality: – (Red Sea).
Genus name: Mugil.
Species/subspecies name (FORSSKAL): –, unnamed variety of Mugil crenilabis; (FABRICIUS in NIEBUHR): tade, tade or edda.
Arabic names (Latinised, FORSSKAL, FABRICIUS in NIEBUHR): Tade, Edda.
Remarks: In his draft, FORSSKAL used the Arabic name ‘tade’ as a substitute for a Latin name possibly to be selected. He did not decide if this was an undescribed species at all. We cannot be certain if the data source for this description was by FORSSKAL or NIEBUHR or both; the description was compiled by FABRICIUS. FABRICIUS in NIEBUHR (1775a) described the new species in two different versions, as a variety Mugil crenilabis tade in the index on p. XIV, and as Mugil crenilabis, variety tade or edda on p. 74. It is assumed that it is meant to be a variety of Mugil crenilabis in both versions; though in the version in the text is not available as FABRICIUS did not decide whether to name the variety ‘tade’ or ‘edda’, it would be available from the index as Mugil crenilabis tade. Both versions are linked together by the species code ’109d’. The name is accompanied by a diagnosis, and would be available by indication (ICZN, Art. 12.2.2) as Mugil crenilabis tade FABRICUS [ex FORSSKAL] in NIEBUHR, 1775, with the actual name Chelon tade (FABRICUS [ex FORSSKAL] in NIEBUHR, 1775), the authorship pending a decision of ICZN. The species was considered as valid since WALBAUM (1792: 227, Mugil Tade vel Aedda). BLOCH & SCHNEIDER (1801: 116) erroneously named this taxon Mugil crenilabis tade. – Mugil planiceps Valenciennes in Cuvier & Valenciennes, 1836 was regarded as a junior synonym of this species by HARRISON & SENOU (1999: 2091).

Crenimugil crenilabis (FORSSKAL in NIEBUHR, 1775)


FORSSKAL in NIEBUHR (1775a: 73): “109. MUGIL crenilabis; pinna dorsali anterioria radius 4, flexilibus; posteriore inermibus: labis crenatis; inferiore bicarinate.”
Type locality: “In Mari Rubro” (Red Sea).
Genus name: Mugil.
Species name (FORSSKAL, FABRICIUS in NIEBUHR): crenilabis.
Arabic name (Latinised, **Forsskål, Fabricius in Niebuhr):** Arabic.

**Remarks:** Both **Forsskål** and **Fabricius in Niebuhr** described this species as *Mugil crenilabis*; the name is binomial in both the index and text, it was accompanied by a diagnosis and description, and is therefore available as *Mugil crenilabis* Forsskål in Niebuhr, 1775. The species was treated as valid since **Bonnaterre** (1788: 180) and **Walbaum** (1792: 226–227).

“*Moolgarda seheli* (Forsskål in Niebuhr, 1775)”


**Type locality:** “LOHAJE” (Al-Luhayya/Yemen); – (Red Sea).

**Type material:** Holotype: ZMUC P.71372 (dry skin) (see **Fabricius** in **Niebuhr** 1965: 26, pl. 37; material has been confused with *Mugil tade*).

**Genus name:** *Mugil*.

**Species/subspecies name (Forsskål):** –, unnamed variety of *Mugil crenilabis*; (**Fabricius in Niebuhr**): seheli.

**Arabic names** (Latinised, **Forsskål, Fabricius in Niebuhr**): Sehéli, Hari (Lohaja), Tobâr.

**Remarks:** In his draft, **Forsskål** used the Arabic name ‘seheli’ as a substitute for a Latin name possibly to be selected. He did not decide if this was an undescribed species at all. We cannot be certain if the data source for this description was by **Forsskål** or **Niebuhr** or both; the description was compiled by **Fabricius**. **Fabricius in Niebuhr** (1775a) described the new species in two different versions, as a variety *Mugil crenilabis seheli* in the index on p. XIV, and as *Mugil crenilabis*, variety *Mugil seheli* on pp. 73–74. It is assumed that it is meant to be a variety of *Mugil crenilabis* in both versions, the name is accompanied by a diagnosis and description, and would be available as *Mugil crenilabis seheli* **Fabricius** [ex **Forsskål**] in Niebuhr, 1775, with the actual name *Moolgarda seheli* **Fabricius** [ex **Forsskål**] in Niebuhr, 1775), the authorship pending a decision of ICZN. The species was considered as valid since **Walbaum** (1792: 227, *Mugil Seheli*).

*Mugil cephalus* (Linnaeus, 1758)


**Localities:** – (probably both İzmir/Turkey, and İstanbul/Turkey); “Melita” (La Valletta/Malta); – (?Alexandria/Egypt; ?Red Sea).

*Mugil cephalus* (Linnaeus, 1758)


**Type locality:** – (Red Sea).

**Type material:** Holotype: ZMUC P.71372 (dry skin) (see **Klauses-Witz** & **Nielsen** 1965: 26, pl. 36; **Moller** 2006).

**Genus name:** *Mugil*.

**Species/subspecies name (Forsskål):** –, unnamed variety of *Mugil crenilabis*; (**Fabricius in Niebuhr**): crenilabis öur.

**Arabic name** (Latinised, **Forsskål, Fabricius in Niebuhr**): Öür.

**Remarks:** In his draft, **Forsskål** used the Arabic name ‘öur’ as a substitute for a Latin name possibly to be selected. He did not decide if this was an undescribed species at all. We cannot be certain if the data source for this description was by **Forsskål** or **Niebuhr** or both; the description was compiled by **Fabricius**. **Fabricius in Niebuhr** (1775a) described this taxon as a variety *Mugil crenilabis öur* in both the index and text. The ‘ö’ is a substitute for the Latin spelling ‘oe’. The name is accompanied by a diagnosis and description, and would be available as *Mugil crenilabis öur* **Fabricius** [ex **Forsskål**] in Niebuhr, 1775, with the authorship pending a decision of ICZN. The species was considered as valid by **Walbaum** (1792: 227, *Mugil Oeur*). It is, however, a junior synonym of *Mugil cephalus* Linnaeus, 1758.

**Atherinidae** — Old World silversides

*Atherina sp.*


**Localities:** “Constantinopoli” (İstanbul/Turkey).

**Remarks:** **Forsskål in Niebuhr**’s (1775a) *Atherina hepsetus* is of a composite origin. Neither can be considered as an independent species description, but refer to *Atherina hepsetus* Linnaeus, 1758; the Constantinopole (İstanbul) material is based on either *Atherina hepsetus* Linnaeus, 1758 or *Atherina boyeri* Risso, 1810, while the Djidda (Jeddah) material is *Atherinomorus forskali* (see below).

*Atherinomorus forskali* (Rüppell, 1838)


**Localities:** “DIDDEE” (Jeddah, Juddah/Saudi Arabia).

**Forsskål material:** ZMUC P.71370 (ex P.101), 1 specimen [indicated as holotype by **Eschmeyer** (2007), though the specimen does not have type status].

**Arabic names** (Latinised, **Forsskål, Fabricius in Niebuhr**): Abu geschgusch, Abu keskel, Keschkusch.

**Remarks:** **Forsskål in Niebuhr**’s (1775a) *Atherina hepsetus* is of a composite origin. Neither is an independent species description, but based on misidentified *Atherina hepsetus* (non Linnaeus, 1758); **Fabricius** [ex **Forsskål**] in Niebuhr (1775a: 69) referred to *Hasselquist’s* (1757) description from Egypt, while *Hasselquist referred to Linnaeus* (1758) [**Hasselquist** (1757) rejected for nomenclatural purposes by the International Commission on Zoological Nomenclature, see Anonymous (1914, 1956) and **Melville & Smith** (1987: 330)]. While the Constantinople (İstanbul) record is based on *Atherina sp.* (see above), the Djidda (Jeddah) material was said to be based on *Atherinomorus lacuonius* (see **Randall** 2005: 78). This species was subsequently described as *Atherina forskalii* Rüppell, 1837 (RÜPPELL 1837: 132–133, pl. 33, fig. 1), based in part on **Forsskål in Niebuhr**’s description. It was considered as valid by **Kimura et al.** (2007).

**Exocoetidae** — Flyingfishes

**Exocoetidae**, indet.

tur, eum suisse Hebræorum Selmo, & ad castra usque Isra-

elitarum volitasse.”.

Localities: “Djiddae” (Jeddah, Juddah/Saudi Arabia); “Moccâeh” (Al-Mukhâ/Yemen).

Remarks: Though this record is based on the Linnaean name Exocoetus volitans Linnaeus, 1758, it is probably of a com-

posite nature, based on various exocoetid species occurring in the Red Sea. Gorex & Dor (1994: 15) listed eight species of the family occurring in the area; most of them may have been seen during Forskål’s expedition and could be for this basis for the record. A species named Exocoetus grizzly Klunzinger, 1871 (Klunzinger 1871: 586) is a junior syno-

nym of Parexocoetus mento (Valenciennes in Cuvier & Va-

lenzennes, 1847).

Hemiramphidae – Halfbeaks

“Hemiramphus far (Forskål in Niebuhr, 1775)”


Fabricius [ex Forskål] in Niebuhr (1775a: 67): “98. [ESOX marginaetus] β far; Lohaje: huic simillimius; supra linea argentea maculis nigris notatus.”.

Type locality: “Lohaje” (Al-Luhayya/Yemen).

Genus name: Esox.

Species/subspecies name (Forskål): –; (Fabricius in Niebuhr): marginaetus far.

Arabic name (Latinised, Forskål): Far.

Remarks: In his draft, Forskål used the Arabic name ‘Far’ as a substitute for a Latin name to be selected. He did not decide if this was an undescribed subspecies at all. We cannot be certain if the data source for this description was by Forskål or Niebuhr or both; the description was compiled by Fab-

ricius. Fabricius in Niebuhr described Esox far as a variety of Esox marginaetus; the name was accompanied by a diag-

nosis, and would be available as Esox far Fabricius [ex Forskål] in Niebuhr, 1775, with the actual name Hemiram-

phus far (Fabricius [ex Forskål] in Niebuhr, 1775), the au-

thors pending a decision of ICZN. This is a valid spec-

ies.

Hemiramphus marginatus (Forskål in Niebuhr, 1775)

Forskål in Niebuhr (1775a: XIII): “98. ESOX α marginatus; abdomine margato. Gambarur. […] Arabic name”.

Forskål in Niebuhr (1775a: 67): “98. ESOX marginaetus; pinna dorsali anique oppositis; linea laterali argentea; maxilla inferiori sextuplo longiori.”.

Type locality: “DIHDA” (Jeddah, Juddah/Saudi Arabia).

Type material: Holotype: ZMUC P.342523 (dry skin) (see Klausewitz & Nielsen 1965: 25, pl. 35; Moller 2006).

Genus name: Esox.

Species name (Forskål, Fabricius in Niebuhr): marginatus.

Arabic name (Latinised, Forskål, Fabricius in Niebuhr): Gambarur.

Remarks: Both Forskål and Fabricius in Niebuhr described this species as Esox marginatus; the name is binominal in both the index and text, it was accompanied by a diagnosis and description, and is therefore available as Esox margina-

etus Forskål in Niebuhr, 1775. This is a valid species, now named Hemiramphus marginatus (Forskål in Niebuhr, 1775).

Remarks: This cannot be regarded as an independent new spec-

ies description, as Forskål in Niebuhr (1775a) merely stated that this is ‘not volitans’, but did not give a proper spec-

ies name. The name is neither binomial, nor sufficiently described or diagnosed, and is therefore not available as Exocoetus non volitans Forskål in Niebuhr, 1775; the record was probably based on the hemiramphid Oxyphorhamphus bruuni Parin, Collette & Shcherbachiev, 1980. The name Exocoetus non volitans Forskål in Niebuhr, 1775 was not included in Eschmeyer (2007).

Belonidae – Needlefishes

Belonidae, indet.

Forskål [ex Anonymus] in Niebuhr (1775a: XIX): “[ESOX bel-

one.”.

Locality: “Melita” (La Valletta/Malta).

Remarks: This is a record of Esox belone (non Linnaeus, 1761); the spelling of the species name as ‘belone’ is erroneous. The record is based on the name only, and cannot be as-

signed to species level; it may be attributable to either Be-

lone acus Risso, 1827, Belone svetovidovi Collette & Parin, 1970 or Tylosurus imperialis (Rafinesque-Schmaltz, 1810).

Belone acus Risso, 1827


Locality: “Constantinopolis” (İstanbul/Turkey).

Remarks: This is a misidentification of Eos ebleone (Linnaeus, 1758) or Esox belone (non Linnaeus, 1761) (discussion of taxonomy see below under Tylosurus choram), a species now named Belone belone (Linnaeus, 1761), and restricted to the northeastern Atlantic. Forskål’s Turkish material is based on Belone acus Risso, 1827; this species has the actual Turkish name ‘Zargana’ (Fricke et al. 2007: 69).

Tylosurus acus (Lacepède, 1803)

Fabricius [ex Anonymus] in Niebuhr (1775a: XIX): “[ESOX ac-

us.”.

Locality: “Melita” (La Valletta/Malta).

Remarks: This is a misidentification of Syngnathus acus (non Linnaeus, 1758), under a different genus Eos because the author felt that it was related to the belonids. The name can-

not be considered as an independent species description; Lacepède (1803: 325, 327, pl. 1, fig. 3) subsequently named the species Sphyraena acus. This name was suppressed by Opinion 900 (Anonymus 1969), but the opinion was widely ignored by the ichthyological community since 1965; it is therefore recommended by Eschmeyer (2007) to retain the name Tylosurus acus (Lacepède, 1803) as the valid name of the species.

Tylosurus choram (Rüppell, 1837)

Fabricius [ex Forskål] in Niebuhr (1775a: XIII) (part): “[98. ESOX] γ belone; Charterman. […] Arabic name”.


Locality: “Maris Rubri” (Red Sea).

Remarks: This is not an independent species description, but is a misidentification of Eos belone (non Linnaeus, 1758) or Esox belone (non Linnaeus, 1761). Esox belone Linnaeus, 1758 is a nomen dubium in Belonidae according to Collette...
Sciaena mordjan as a new species. The name is binominal, accompanied by a diagnosis and description, and would be available as Sciaena mordjan Fabricius [ex Forsskål] in Niebuhr, 1775, with the actual name Myripristis mordjan (Fabricius [ex Forsskål] in Niebuhr, 1775), the authorship pending a decision of ICZN. The species was treated as valid since Bonnaterre (1788: 120) and Walbaum (1792: 316). Bloch & Schneider (1801: 86) erroneously spelled the name Perca mordian.

“Neoniphon sammara (Forsskål in Niebuhr, 1775)”


Type locality: “Dijđade” (Jeddah, Jeddah/Saudi Arabia).

Type material: Holotype: ZMUC P.4042 (part of dry skin, head missing) (see Klauswitz & Nielsen 1965: 19, pls. 15–16; Møller 2006).

Genus name: Sciaena.

Species name (Forsskål): –; (Fabricius in Niebuhr): abu samf. Arabic name (Latinised, Forsskål, Fabricius in Niebuhr): Abu samf.

Remarks: In his draft, Forsskål used the Arabic name ‘abu samf’ as a substitute for a Latin name possibly to be selected. He did not decide if this was an undescribed species at all. We cannot be certain if the data source for this description was by Forsskål or Niebuhr or both; the description was compiled by Fabricius. Fabricius in Niebuhr (1775a) described Sciaena abu samf as a new species. The name is, however, not binominal, as the species name is consisting of two words; though it was accompanied by a diagnosis, it is not available as Sciaena abu samf/ Fabricius [ex Forsskål] in Niebuhr, 1775 (ICZN, Art. 5). The name is neither available from the Sciaena abu samf described by Walbaum (1792: 310–311), as a copy of Forsskål’s description, for the same reasons. Sciaena dhusamf/ Lapèpè [ex Forsskål], 1802 was subsequently described by Lapepé (1802: 307, 311), and is the first available version of the name as it was binominal and accompanied by a diagnosis. The species is at present unplaceable in the family Holocentridae; judging from the description (white spots in dorsal fin, etc.), it may have been based on either “Neoniphon sammara (Forsskål in Niebuhr, 1775)”, or on Sargocentron marisrubri Randall, Golani & Diamant, 1989.

 Remarks: In his draft, Forsskål used the Arabic name ‘murdjan’ as a substitute for a Latin name possibly to be selected. He did not decide if this was an undescribed species at all. We cannot be certain if the data source for this description was by Forsskål or Niebuhr or both; the description was compiled by Fabricius. Fabricius in Niebuhr (1775a) described Sciaena mordjan as a new species. The name is binominal, accompanied by a diagnosis and description, and would be available as Sciaena mordjan Fabricius [ex Forsskål] in Niebuhr, 1775, with the actual name Myripristis mordjan (Fabricius [ex Forsskål] in Niebuhr, 1775), the authorship pending a decision of ICZN. The species was treated as valid since Bonnaterre (1788: 120) and Walbaum (1792: 316). Bloch & Schneider (1801: 86) erroneously spelled the name Perca mordian.

“Neoniphon sammara (Forsskål in Niebuhr, 1775)”


Type locality: “Dijđade” (Jeddah, Jeddah/Saudi Arabia).

Type material: Holotype: ZMUC P.4042 (part of dry skin, head missing) (see Klauswitz & Nielsen 1965: 19, pls. 15–16; Møller 2006).

Genus name: Sciaena.

Species name (Forsskål): –; (Fabricius in Niebuhr): abu samf. Arabic name (Latinised, Forsskål, Fabricius in Niebuhr): Abu samf.

Remarks: In his draft, Forsskål used the Arabic name ‘abu samf’ as a substitute for a Latin name possibly to be selected. He did not decide if this was an undescribed species at all. We cannot be certain if the data source for this description was by Forsskål or Niebuhr or both; the description was compiled by Fabricius. Fabricius in Niebuhr (1775a) described Sciaena abu samf as a new species. The name is binominal, accompanied by a diagnosis and description, and would be available as Sciaena abu samf/ Fabricius [ex Forsskål] in Niebuhr, 1775 (ICZN, Art. 5). The name is neither available from the Sciaena abu samf described by Walbaum (1792: 310–311), as a copy of Forsskål’s description, for the same reasons. Sciaena dhusamf/ Lapèpè [ex Forsskål], 1802 was subsequently described by Lapepé (1802: 307, 311), and is the first available version of the name as it was binominal and accompanied by a diagnosis. The species is at present unplaceable in the family Holocentridae; judging from the description (white spots in dorsal fin, etc.), it may have been based on either “Neoniphon sammara (Forsskål in Niebuhr, 1775)”, or on Sargocentron marisrubri Randall, Golani & Diamant, 1989.
NIEBUHR (1775a) erroneously used the name Sciaena rubra, ataja for the new species in the text on p. 48. Though the latter version is not binominal and therefore not available (ICZN, Art. 5), both versions are linked together by the species code ‘51’; the version in the index is binominal, it is accompanied by a diagnosis and description on p. 48, and is therefore available by indication (ICZN, Art. 12.2.2) as Sciaena rubra Forsskål in Niebuhr, 1775. The species was treated as valid since BONNATERRE (1788: 120) and WALBAUM (1792: 315–316). Holacanthus ataja Lacepède [ex Forsskål], 1802 (Lacepède 1802: 526, 530–531) is an unneeded new name for Sciaena rubra Forsskål in Niebuhr, 1775; it is available, but a junior synonym.

Sargocentron spiniferum (Forsskål in Niebuhr, 1775)

FORSSKÅL [in NIEBUHR (1775a: XI)]: “54. [SCIÆNA] l) spinifera; capite spinoso. Gabâja. […] Arabic name”.

FORSSKÅL [in NIEBUHR (1775a: 49)]: “54. SCIÆNA spinifera: rubra; pinnis dorsalisibus connexis: capite spinoso, operculi anteriorioribus spina longissima.”.

Type locality: “DIDDA” (Jeddah, Juddah/Saudi Arabia); – (Red Sea).

Type material: Syntype: ZMUC P.4043 (dry skin) (listed as holotype by MOLLER 2006 and ENSCHMEYER 2007) (see KLAUSEN WITZ & NIELSEN 1965: 19, pl. 16).

Genus name: Sciaena.

Species name (FORSSKÅL, FABRICIUS in NIEBUHR): spinifera.

Arabic names (Latinised, FORSSKÅL, FABRICIUS in NIEBUHR): Gabâja, Gaba, Asmud.

Remarks: This new species was described by both FORSSKÅL and FABRICIUS in NIEBUHR (1775a) under the name Sciaena spinifera. The name is binominal in both the index and text, it is accompanied by a diagnosis and description, and is available as Sciaena spinifera Forsskål in Niebuhr, 1775. The species was treated as valid since BONNATERRE (1788: 120–121) and WALBAUM (1792: 317).

Zeidae – Dories

Zeus faber Linnaeus, 1758


Locality: “Melita” (La Valletta/Malta). Local name: “Laurata”.

Syngnathidae – Pipefishes

Syngnathoides biaculeatus (Bloch, 1785)


Locality: – (Red Sea).

Remarks: This cannot be regarded as an independent new species description, but is a misidentification of the species Syngnathus pelagicus (non Linnaeus, 1758). FORSSKÅL’s record is based on Syngnathoides biaculeatus (Bloch, 1785).

Centriscidae – Shrimpfishes

Centriscus scutatus Linnaeus, 1758


Material: No FORSSKÅL material extant.

Remarks: This is not an independent species description, but a record of the Linnaean species Centriscus scutatus.

Macroramphosus scolopax (Linnaeus, 1758)


FORSSKÅL in NIEBUHR (1775a: 66): “96. SILURUS cornutus, pinnis pect. inermibus; radio pinne dorsalis prima dentato.”.

Type locality: “Mассилий” (Marseille/France).

Genus name: Silurus.

Species name (FORSSKÅL, FABRICIUS in NIEBUHR): cornutus.

Remarks: This species was described by both FORSSKÅL and FABRICIUS in NIEBUHR as Silurus cornutus; the description was accompanied by a diagnosis and description. The name is available as Silurus cornutus Forsskål in Niebuhr, 1775. It is a junior synonym of Macroramphosus scolopax (Linnaeus, 1758).

Macroramphosus scolopax (Linnaeus, 1758)


Locality: “Melita” (La Valletta/Malta).

Scorpaenidae – Scorpionfishes

Helicoolepis dactylopterus (Delaroche, 1809)

FORSSKÅL [ex Anonymous] in NIEBUHR (1775a: XVIII): “SCORPENA (sp.).”

Locality: “Melita” (La Valletta/Malta). Local Maltese name: “Cipullazzà”.

Remarks: According to the Maltese name listed by FORSSKÅL, this record is based on the blackbelly rosefish Helicoolepis dactylopterus (Delaroche, 1809) (actual vernacular Maltese name “Cipullazzà ta g’ghajn”; Anonymous 2007b).

Scorpaenidae, indet.


Locality: “Melita” (La Valletta/Malta). Local Maltese name: “I Scorfuà”.

Remarks: This is a misidentification of the species Cottus scorpius (non Linnaeus, 1758). The actual vernacular Maltese name “Scorfuà” (Anonymous 2007b) refers to several species of Scorpaena sp.

Scorpaena porcus Linnaeus, 1758


Type locality: [Massiliensis] (Marseille/France) (erroneously listed as ‘Arabia’ by ENSCHMEYER 2007).

Genus name: Cottus.

Species name (FORSSKÅL, FABRICIUS in NIEBUHR): massiliensis.

Remarks: This species was described by both FORSSKÅL and FABRICIUS in NIEBUHR as Cottus massiliensis; the description was accompanied by a diagnosis and description; the name is available as Cottus massiliensis FORSSKÅL in Niebuhr, 1775. It was considered by FORSSKÅL to be identical with Scorpaena scrofa, and he apparently intended to check the identity of the species before publishing it as a new species. FORSSKÅL differentiated the species from Cottus cataphractus (Agonus
cataphractus) and Cottus scorpius (Myoxocephalus scorpius). This species name was clearly not ready for publication, but Fabricius in Niebuhr published it out of Forskål's manuscript notes. The species was considered as valid by Walbaum (1792: 393), but is a junior synonym of Scorpaena porcus Linnaeus, 1758.

**Scorpaena scrofa** Linnaeus, 1758  

Localities: “Türc.” (probably both İzmir/Turkey, and İstanbul/Turkey).

Turkish name (Forskål's transcription): Scorpius balük. Actual Turkish name: Iskörpit balığı (Fricke et al. 2007: 77).

Remarks: This species was listed by Forskål in Niebuhr as Scorpaena porcus, which clearly refers to the Linnaean species Scorpaena porcus. However, the species was apparently misidentified, as the Turkish name of Scorpaena porcus is ‘Lipsoz’ (Fricke et al. 2007: 77). The name ‘İskörpit balığı’ refers to Scorpaena scrofa Linnaeus, 1758, a species which is also common in the Sea of Marmara and Aegean Sea.

**Triglaidae – Searobins**

*Chelidonichthys cuclus* (Linnaeus, 1758)  

Locality: “Melita” (La Valletta/Malta).

*Chelidonichthys gurnardus* (Linnaeus, 1758)  


Localities: “Türc.” (?İstanbul/Turkey); “Melita” (La Valletta/Malta).

Actual Turkish name: Benekli kirlangıç (Fricke et al. 2007: 77).

Remarks: This species is common around both İzmir and İstanbul/Turkey. It was probably collected by Forskål at İstanbul using the chartered fishing vessel.

*Chelidonichthys gurnardus* Linnaeus, 1758  

Locality: “Melita” (La Valletta/Malta). Local Maltese name: “I Ta’ra”.

Remarks: *Trigla milvus* Forskål in Niebuhr, 1775 is a name only (nomen nudum), not accompanied by additional information, and therefore not available. The local name refers to Chelidonichthys gurnardus (Linnaeus, 1758).

*Chelidonichthys lucernus* (Linnaeus, 1758)  

Locality: “Melita” (La Valletta/Malta). Local name: “I Tiegiga”.

*Trigla lyra* Linnaeus, 1758  

Locality: “Melita” (La Valletta/Malta). Local name: “Il Triglia”.

**Platycephalidae – Flatheads**

*Platycephalus indicus* (Linnaeus, 1758)  

Fabricius in Niebuhr (1775a: 25): “8. COTTUS ROGAD; INSIDIATOR.”

Type locality: – (Red Sea).

Type material: Holotype: ZMUC P.8012 (dry skin) (see Klausen-Witz & Nielsen 1965: 13; pl. 2; Möller 2006).

Genus name: Cottus.

Species name (Forskål): insidiator; (Fabricius in Niebuhr): rogad.

Arabic names (Latinised, Forskål, Fabricius in Niebuhr): Râgede, Rogad, Raked.

Remarks: This species was named in two different versions, Cottus rogad, insidiator in the text on p. 25, and Cottus insidiator rogad in the index on p. X, with the name ‘Rogad’ clearly intended as local Arabic name. Though the name Cottus rogad, insidiator is not binominal and therefore not available (ICZN, Art. 5), the name is available by indication (ICZN, Art. 12.2.2) as Cottus insidiator Forskål in Niebuhr, 1775 from the index on p. X. A diagnosis and description are found on p. 25, and both versions are linked together by the species code ‘8’. Cottus insidiator was treated as valid since Bonnaterre (1788: 68) and Walbaum (1792: 392), but is a junior synonym of Platycephalus indicus (Linnaeus, 1758).

**Perciformes – Perches**

Perciformes, incertae sedis  
Forskål [ex Anonymus] in Niebuhr (1775a: XVIII): “CHETODON paru.”.

Locality: “Melita” (La Valletta/Malta).

Remarks: *Chaetodon paru* Forskål [ex Anonymus] in Niebuhr, 1775 is a name only (nomen nudum), neither accompanied by a diagnosis nor an indication, and therefore not available. The species is unplaceable (Pyle in Eschmeyer 2007). Under the same name *Chaetodon paru* Bloch, 1787 (Bloch 1787: 57, pl. 197) was described, which is currently treated as a valid species, with the currently used name Pomacanthus paru (Bloch, 1787).

Perciformes, incertae sedis  

Locality: “Melita” (La Valletta/Malta).

Remarks: This is a misidentification of Perca asper (non Linnaeus, 1758). The species is unplaceable within the Perciformes.

Perciformes, incertae sedis  
Forskål [ex Anonymus] in Niebuhr (1775a: XVIII): “[Perca lucioperca.”.

Locality: “Melita” (La Valletta/Malta).

Remarks: This is a misidentification of Perca lucioperca (non Linnaeus, 1758). The species is unplaceable within the Perciformes.

Perciformes, incertae sedis  

Locality: “Melita” (La Valletta/Malta).

Remarks: This is a misidentification of Blennius gunnellus (non Linnaeus, 1758); the latter has the currently used name *Pomata gunnellus* (Linnaeus, 1758), and is restricted to the north-
eastern Atlantic. Forsskål’s Maltese record is unplaceable within the Perciformes.

Perciformes, incertae sedis
**Forsskål** [ex *Anonymous*] in *Niebuhr* (1775a: XIX): “Anarhichas lupus marinus.”
Locality: “Melita” (La Valletta/Malta).
Remarks: This is a nomen nudum, and a misidentification of *Anarhichas lupus* (non Linnaeus, 1758); the latter species is restricted to the northeastern Atlantic and does not occur south of the North Sea. Forsskål’s Maltese record is unplaceable within the Perciformes.

**Ambassis sidae** – Asiatic glassfishes

*Ambassis natalensis* Gilchrist & Thompson, 1908


Type locality: – (Red Sea).

Genus name: *Sciaena*.

Species name (Forsskål): –; (Fabricius in Niebuhr): *safgha*.

Arabic name (Latinised, Forsskål, Fabricius in Niebuhr): Safgha.

Remarks: In his draft, Forsskål used the Arabic name ‘Safgha’ as a substitute for a Latin name to be selected. He did not decide if this was an undescribed species at all. We cannot be certain if the data source for this description was by Forsskål or Niebuhr or both; the description was compiled by Fabricius. Fabricius in Niebuhr listed the species *Sciaena safgha* as a new species in the index; he used ‘safgha’ as the species name in the text, but explicitly mentioned that this is the Arabic name (‘Arab.’). The name is accompanied by a diagnosis in the text; as both the index and the text are linked together by the species code ‘67’, the name *Sciaena safgha* Fabricius [ex Forsskål] in Niebuhr, 1775 is therefore not available from the text, but would be available by indication (ICZN, Art. 12.2.2) from the index, with the authorship pending a decision of ICZN. The name was used by subsequent authors as valid, e.g. Walbaum (1792: 319, *Sciaena safgha*) and Bloch & Schneider (1801: 86, *Perca safgha*). This is a rarely used senior synonym of *Ambassis natalensis* Gilchrist & Thompson, 1908 according to Anderson & Heemstra (2003: 205). Dor (1984: 94) and Goren & Dor (1994: 24) used *Sciaena safgha* as a valid name. *Ambassis natalensis* is here retained as the valid name for the species to preserve the name of prevailing usage, but an application to the International Commission on Zoological Nomenclature is needed to reject the senior synonym *Sciaena safgha*.

**Dicentrarchus** sp.

*Forsskål* [ex *Anonymous*] in *Niebuhr* (1775a: XVIII): “Gasterosteus aculeatus.”


Locality: “Melita” (La Valletta/Malta).

Remarks: This is a misidentification of the three Linnaean species *Gasterosteus aculeatus* (non Linnaeus, 1758), *G. pungitius* (non Linnaeus, 1758), and *G. spinachia* (non Linnaeus, 1758). Forsskål’s Maltese record is unplaceable within the Perciformes.

**Moronidae** – Temperate basses

*Dicentrarchus labrax* (Linnaeus, 1758)

Forsskål in Niebuhr (1775a: XI): “[42. PERCA b) summanaj γ) sciaena nilotica Adđraž.”

Forsskål [ex *Anonymous*] in Niebuhr (1775a: XVIII): “[PERCA labrax]”.

Forsskål in Niebuhr (1775a: 42, part): “… Linn. Perca nilot.? Gr. Αδḍραζ; que certius *Sciaena* est; quia pinna dorsi prima tota in fossa reconditur; & radii Dors. ? Cauda linearis, ascendens; pinna ani albida, apice fusca.”

Localities: “Nile” (Egypt); “Melita” (La Valletta/Malta).

Remarks: *Sciaena nilotica* (non Linnaeus, 1758) was erroneously diagnosed and described in the synonymy of *Perca summana* (p. XI), or *Perca summana* *fusco-guttata* (p. 42). This is most probably due to a confusion of *Forsskål’s* species description sheets by Fabricius (in *Niebuhr* 1775a), as Forsskål apparently decided that this species belonged to the genus *Sciaena* rather than *Perca*. Forsskål’s *Sciaena nilotica* (non Linnaeus, 1758) is based on a misidentified *Dicentrarchus labrax* (Linnaeus, 1758). The Linnaean species *Perca nilotica* is a different, valid species of cichlid fishes, with the currently used name *Oreochromis niloticus* (Linnaeus, 1758).

**Serranidae** – Sea basses

Serranidae, indet.


Locality: – (Aegean Sea of Turkey or Greece).

Remarks: This is not an independent new name, but a misidentification of *Labrus striatus* (non Linnaeus, 1758); *Centropristis striata* (Linnaeus 1758) is restricted to the West Atlantic. Forsskål’s record is based on an unidentified serranid fish, either an *Epinetheus* or a *Mycteroperca*.

“Aethaloperca rogaa* (Forsskål in Niebuhr, 1775)

**Fabricius** [ex *Forsskål*] in *Niebuhr* (1775a: XI): “36. PERCA b) rogaa; subnigra. Rogaa. […] Arabic name].”


Type locality: “Dudda” (Jeddah, Jeddah/Arabia).

Genus name: *Perca*.

Species name (Forsskål): –; (Fabricius in Niebuhr): *rogaa*.

Arabic name (Latinised, Forsskål): *Rogāa*.

Remarks: In his draft, Forsskål used the Arabic name ‘Rogāa’ as a substitute for a Latin name to be selected. He did not decide if this was an undescribed species at all. We cannot be certain if the data source for this description was by Forsskål or Niebuhr or both; the description was compiled by Fabricius. Fabricius in Niebuhr described *Perca rogaa* as a new species; the name is binomial in both the index and text, it was accompanied by a diagnosis and description, and the name would be therefore available as *Perca rogaa* Fabricius [ex Forsskål] in Niebuhr, 1775, with the actual name *Aethaloperca rogaa* (Fabricius [ex Forsskål] in Niebuhr,
1775), the authorship pending a decision of ICZN. The species was treated as valid since BONNATERRE (1788: 131) and WALBAUM (1792: 344).

“Aethaloperca rogaa (Forskål in Niebuhr, 1775)”
FORSKÅL IN NIEBUHR (1775a: XI): “37. [PERCA] c) LUNARIA; P. C. macula lunata. Bint er robbân.”.
FORSKÅL IN NIEBUHR (1775a: 39): “37. PERCA LUNARIA; ferrugineo-nigra: pinnis pect. nigris, pone flavis: dorsali & caude pone hyalino-albis.”.
Type locality: “E. Des” (Jeddah, Juddah/Saudi Arabia).
Genus name: Perca.
Species name (FORSKÅL, FABRICIUS IN NIEBUHR): lunaria.

Remarks: Both the species name (Latinised, FORSKÅL, FABRICIUS IN NIEBUHR): Bint er robbân.

Cephalopholis argus Bloch & Schneider, 1801
FORSKÅL IN NIEBUHR (1775a: XI): “[41. [PERCA] g) MINIATA] β) caeruleo-ocellata. Baélâh [..., Arabic name].”
Type locality: – (Red Sea).
Type material: Holotype: ZMUC P.43568 (see KLAUSEWITZ & NIELSEN 1965: 18).
Genus name: Perca.
Species/subspecies name (FORSKÅL, FABRICIUS IN NIEBUHR): miniata caeruleo-ocellata.
Arabic names (Latinised, FORSKÅL): Baélâh, Abu belâh; (FABRICIUS IN NIEBUHR): Baélâh.

Remarks: Both FORSKÅL and FABRICIUS IN NIEBUHR listed this name as a variety of Perca miniata in the index, and gave a brief diagnosis as ‘Perca miniata b) Varietas’ in the text on p. 41. As both versions are linked together by the species code ‘41b’, the name is available by indication (ICZN, Art. 12.2.2) as Perca miniata caeruleoocellata FORSKÅL in Niebuhr, 1775, which is a synonym of Perca miniata FORSKÅL in Niebuhr, 1775. Though DOR (1984: 96–97) considered this variety to be a junior synonym of Cephalopholis miniata (FORSKÅL in Niebuhr, 1775), FORSKÅL’s description leaves no doubt that it is in fact an unused senior synonym of Cephalopholis argus Bloch & Schneider, 1801. An application to the International Commission on Zoological Nomenclature will be needed to retain the currently used latter name. This species was subsequently described as Perba balât Walbaum [ex FORSKÅL], 1792 (WALBAUM 1792: 338–339; mis-spelled Perba balât in index on p. 711), which is available and another senior unused synonym of Cephalopholis argus; this name needs suppression by the Commission as well.

Cephalopholis miniata (Forskål in Niebuhr, 1775)
Type locality: “Ad Promont. Dyjmûm ant Jamboum” (Ra’s Barûd, NNW Yanbu/Saudi Arabia, 24°17’N 37°31’E).
Genus name: Perca.
Species/subspecies name (FORSKÅL, FABRICIUS IN NIEBUHR): miniata caeruleo-guttata.
Arabic names (Latinised, FORSKÅL): Nadjil, Nâgeu; (FABRICIUS IN NIEBUHR): miniata caeruleo-guttata.

Remarks: Both FORSKÅL and FABRICIUS IN NIEBUHR listed this name as a variety of Perca miniata in the index, and gave a brief diagnosis as ‘Perca miniata c) … varietas’ in the text on p. 42. As both versions are linked together by the species code ‘41c’, the name is available by indication (ICZN, Art. 12.2.2) as Perca miniata caeruleoguttata FORSKÅL in Niebuhr, 1775, which is a synonym of Perca miniata FORSKÅL in Niebuhr, 1775, with the currently used name Cephalopholis miniatus (FORSKÅL in Niebuhr, 1775). The first reviser was GEMELIN (1789: 1317), choosing Perca miniata as the priority version of the name. This species was subsequently named Perca nadjil Walbaum [ex FORSKÅL], 1792 (WALBAUM 1792: 339); this name is available, and a junior synonym of Perca miniata.

Epinephelus sp.
**Remarks:** This variety name Perca? Σελέβαρδο is accompanied by a brief diagnosis, it is not available as the species 'b'; but they are neither accompanied by an indication, a diagnosis or a description. The name is accompanied by another taxon, only calling it variety 'b'. Both versions are linked together by the species code '110b'; but they are neither available as a substitute for a Latin name to be selected (which he elsewhere did as 'Perca areolata'). He did not decide if this was an undescribed species at all. We cannot be certain if the data source for this description was by Forskål or Niebuhr or both; the description was compiled by Fabricius. "Perca dentibus daba" means "teeth of Perca daba"; this implies that it is a teeth description of the specimen described elsewhere in the paper as Perca areolata (see above). Fabricius in Niebuhr thus described the teeth of Perca daba as a new species; the name is binominal in both the index and text, it was accompanied by a diagnosis, and would be available as Perca daba Fabricius [ex Forskål] in Niebuhr, 1775, with the authorship pending a decision of ICZN. The name is not mentioned by Eschmeyer (2007). It is an unused synonym of Epinephelus areolatus (Forskål in Niebuhr, 1775), recognisable by the Arabic name 'Daba'. Gmelin (1789: 1317–1318) was the first revising author and chose the name Perca areolata as the valid name for the species.

**Epinephelus fasciatus** (Forskål in Niebuhr, 1775)


**Forskål in Niebuhr** (1775a: 40): "39. PERCA fasciata; rubra, fascis transversis, latis, albidis, sub-quaternis."

**Type locality:** "In Mari rubro ad promontorium Mohammed hamo capto" (Ras Muhammad, southern Sinai/Egypt, 27°44'N 34°15'E).

**Genus name:** Perca.

**Species name (Forskål, Fabricius in Niebuhr): fasciata.**

**Remarks:** Both Forskål and Fabricius in Niebuhr described this species as Perca (?) fasciata, indicating in the index and in the remarks that they were not sure if to associate it really with the genus Perca. The name is binominal in both the index and text, it was accompanied by a diagnosis and description, and is therefore available as Perca fasciata Forskål in Niebuhr, 1775. This species was treated as valid since Bonnaterre (1788: 131) and Walbaum (1792: 346), Holocentrus erythraeus Bloch & Schneider [ex Forskål], 1801 (Bloch & Schneider 1801: 320) and Holocentrus forskael Lacepède [ex Forskål], 1802 (Lacepède 1802: 337, 376–378) were described as unneeded new names for Perca fasciata Forskål in Niebuhr, 1775; they are junior synonyms.

**Epinephelus fusco-guttatus** (Forskål in Niebuhr, 1775)

**Forskål in Niebuhr** (1775a: XI): "[42. PERCA h] fusco-guttata. Kassjara:"

**Forskål in Niebuhr** (1775a: 42, part): "42. [PERCA SUMMANA] fusco-guttata. Kasjara:"

**Type locality:** "Sues" (As-Suways/Egypt); "Dhidaa." (Jeddah, Juddah/Saudi Arabia).

**Genus name:** Mugil.

**Species name (Forskål, Fabricius in Niebuhr): summana areolata.**

**Remarks:** This variety name Perca? Σελέβαρδο was the first revising author and chose the name Epinephelus marginatus (Lowe, 1834).
Type locality: Sams Pier, Jidda/Jeddah/Jiddah, Saudi Arabia (as defined by neotype).

Type material: Neotype: USNM 147594, as selected by RANDALL (1964: 291).

Genus name: *Perca*.

Species/subspecies name (Forskål, Fabricius in Niebuhr): *summana fusco-guttata*.

Arabic names (Latinised, Forsskål): Kassjara, Koschar; (Fabricius in Niebuhr): Kassjara.

Remarks: Both Forskål and Fabricius in Niebuhr listed this name as a variety of *Perca summana* in the index and the text; the name is accompanied by a diagnosis and description. The name is available as *Perca summana fuscoguttata* Forskål in Niebuhr, 1775, which is a valid species, with the currently used name *Epinephelus fuscoguttatus* (Forskål in Niebuhr, 1775). This species was subsequently described as *Perca koschar* Walbaum [ex Forskål], 1792 ([Walbaum 1792: 345]), which is an available name, and a junior synonym of *Perca summana fuscoguttata*. Parts of Forskål’s remarks (‘*Perca nilot. . .’) refer to a different species, the moronid fish *Dicentrarchus labrax* (see above).

*Epinephelus marginatus* (Lowe, 1834)


Locality: ‘*Mélita*’ (La Valletta/Malta). Local Maltese name: ‘I Cerna’.

Remarks: This is a misidentification of *Perca cernua* (non Linnaeus, 1758). According to the Maltese name (actual vernacular Maltese name ‘Cernà’; Anonymus 2007b), this record has been based on *Epinephelus marginatus* (Lowe, 1834).

‘*Epinephelus summana* (Forskål in Niebuhr, 1775)’

Fabricius [ex Forskål] in Niebuhr (1775a: XI): ‘42. [PERCA] h) summana; albo-guttata; fusca. Summan. ’

Fabricius [ex Forskål] in Niebuhr (1775a: 42): ‘42. PERCA SUMMANA; cauda rotundata; corpore cinereo-fusco, guttis albis undique adperso.’

Type locality: – (Red Sea).

Type material: Holotype: ZMUC P.43569 (dry skin) (see Klausewitz & Nielsen 1965: 18, pl. 10; Moller 2006).

Genus name: *Perca*.

Species name (Forskål): –; (Fabricius in Niebuhr): summana.

Arabic names (Latinised, Forsskål): Summân, Syman; (Fabricius in Niebuhr): Summân.

Remarks: In his draft, Forskål used the Arabic name ‘Summân’ as a substitute for a Latin name possibly to be selected. He did not decide if this was an undescribed species at all. We cannot be certain if the data source for this description was by Forskål or Niebuhr or both; the description was compiled by Fabricius in Niebuhr described *Perca summana* as a new species; the name is binominal in both the index and text, it was accompanied by a diagnosis and description, and therefore would be available as *Perca summana* Fabricius [ex Forskål] in Niebuhr, 1775, with the actual name *Epinephelus summana* (Fabricius [ex Forskål] in Niebuhr, 1775), the authorship pending a decision of ICZN. The species was treated as valid since Bonna terre (1788: 132) and Walbaum (1792: 345). The name was misspelled *Serranus summana* by Klunzinger (1870: 685).

‘*Epinephelus tauvina* (Forskål in Niebuhr, 1775)’


Type locality: ‘*Diyâdha*’ (Jeddah, Jiddah/Saudi Arabia).

Type material: Holotype: ZMUC P.43565 (dry skin) (see Klausewitz & Nielsen 1965: 17, pl. 8; Moller 2006).

Genus name: *Perca*.

Species name (Forskål): –; (Fabricius in Niebuhr): tauvina.

Arabic name (Latinised, Forsskål, Fabricius in Niebuhr): Tauvina.

Remarks: In his draft, Forskål used the Arabic name ‘Tauvina’ as a substitute for a Latin name to be selected. He did not decide if this was an undescribed species at all. We cannot be certain if the data source for this description was by Forskål or Niebuhr or both; the description was compiled by Fabricius. Fabricius in Niebuhr described *Perca tauvina* as a new species; the name is binominal in both the index and text, it was accompanied by a diagnosis and description, and therefore would be available as *Perca tauvina* Fabricius [ex Forskål] in Niebuhr, 1775, with the actual name *Epinephelus tauvina* (Fabricius [ex Forskål] in Niebuhr, 1775), the authorship pending a decision of ICZN. The species was treated as valid since Bonna terre (1788: 131) and Walbaum (1792: 340–341).

*Serranus cabrilla* (Linnaeus, 1758)

Forskål in Niebuhr (1775a: XI): ‘32. [LABRUS] g) chanus; lineatus. Xávi.’

Forskål in Niebuhr (1775a: 36): ‘32. LABRUS chanus; cauda bifida; capite utrinque rutilus tribus caerulecentibus; quadrato curuleo sub oculo.’

Type locality: ‘*CONSTANTINOPOLI*’ (İstanbul/Turkey).

Genus name: *Labrus*.

Species name (Forskål): –; (Fabricius in Niebuhr): lapina.

Remarks: In his draft, Forskål used the Greek name Xávi as a substitute for a Latin name possibly to be selected. He did not decide if this was an undescribed species at all. We cannot be certain if the data source for this description was by Forskål or Niebuhr or both; the description was compiled by Fabricius. Fabricius in Niebuhr described *Labrus chanus* (Forskål in Niebuhr, 1775) as a substitute for *Labrus chani* listed by Klunzinger (1870: 685), but is a junior synonym of *Perca cabrilla* Linnaeus, 1758, with the currently used name *Serranus cabrilla* (Linnaeus, 1758). The Turkish name ‘chani’ listed by Forskål corresponds with the modern name ‘Hani’ (as ‘Asil hani’, see Fricke et al. 2007: 80). The species is regularly found in the Bosporus and Marmara Sea near İstanbul; today it is near threatened in Turkey (Fricke et al. 2007: 80).

*Serranus hepatus* (Linnaeus, 1758)


Type locality: ‘*Mélita*’ (La Valletta/Malta).

Remarks: The name *Labrus sachettus* Forskål [ex Anonymus] in Niebuhr, 1775a is a name only (nomen nudum), as it is neither accompanied by a diagnosis nor an indication. Judging from the species name ‘sachettus’, it is based on *Serranus hepatus* (Linnaeus, 1758), which has the Italian local name ‘Sachetto’.

‘*Variola louti*’ (Forskål in Niebuhr, 1775)’


Type localities: “Djiddæ” (Jeddah, Juddah/Saudi Arabia); “Lo-hajée” (Al-Luhayya/Yemen).

Type material: SMUC P.43566 (listed as holotype by Møller 2006 and Eschmeyer 2007) (see Klauesetz & Nielsen 1965: 17, pl. 9).

Genus name: Perca.

Species name (Forsskål): –; (Fabricius in Niebuhr): louti.

Arabic names (Latinised, Fabricius in Niebuhr): Louti; (Fabricius in Niebuhr): Louti, Schán.

Remarks: In his draft, Forsskål used the Arabic name ‘Louti’ as a substitute for a Latin name to be selected. He did not decide if this was an undescribed species at all. We cannot be certain if the data source for this description was by Forsskål or Niebuhr or both; the description was compiled by Fabricius in Niebuhr described Perca louti as a new species; the name is binomial in both the index (p. XI) and the text (pp. 40–41), and the version on p. 44 means ‘teeth of Perca louti’, the name was accompanied by a diagnosis and description, and therefore would be available as Perca louti Fabricius [ex Forsskål] in Niebuhr, 1775, with the actual name Variola louti (Fabricius [ex Forsskål] in Niebuhr, 1775), the authorship pending a decision of ICZN. The species was treated as valid since Bonnaterre (1788: 133) and Walbaum (1792: 338).

**Pseudochromidae – Dottybacks**

_Haliophis guttatus_ (Forsskål in Niebuhr, 1775)

_Forskål_ in _Niebuhr_ (1775a: X): “1. MURÆNA a) GUTTATA. Sjæeka.”

_Type locality: “Djiddæ” (Jeddah, Juddah/Saudi Arabia)._

_Genus name: Muraena._

Species name (Forskål, Fabricius in Niebuhr): guttata.

_Arabic name (Latinised, Forskål): Sjaeka; (Fabricius in Niebuhr): Sjæeka (meaning Sjaeka)._ 

Remarks: This species was described by both Forskål and Fabricius in Niebuhr as _Nuraena guttata_; the name is binomial, and accompanied by a diagnosis and description; the name is available as _Muraena guttata_ Forsskål in Niebuhr, 1775, and was treated as valid since Bonnaterre (1788: 35) _Muraena maculata_ Lacepède [ex Forskål], 1800 (Lacepède 1800: 265–266) is an unneeded new name for _Muraena guttata_ Forsskål in Niebuhr, 1775; it is available, but a junior synonym.

**Priacanthidae – Bigeyes**

“Priaianthus hamrur” (Forskål in Niebuhr, 1775b)“Priaianthus hamrur” (Forskål in Niebuhr, 1775a: XI): “44. SCLÊNA a) HAMUR; squamiceps. _Abu hamur_.”

_Fabricius [ex Forskål]_ in _Niebuhr_ (1775a: 44): “SCLÊNA … I ABU HAMUR: hujus characterem vide in descriptione._

_Fabricius [ex Forskål]_ in _Niebuhr_ (1775a: 45): “44. SCLÊNA HAMUR; cupreo-rubra: pinnis obscurioribus; capite undique squamato: ore subverticali: squamarum margine membranæceo._”

_Type localities: “Djiddæ” (Jeddah, Juddah/Saudi Arabia); “Lo-hajée” (Al-Luhayya/Yemen)._

Type material: Lectotype: ZMUC P.44109 (dry skin, ex ZMUC P.4773), as designated by Klauesetz & Nielsen (1965: 18; see also pl. 11); paralecotype: ZMUC P.44110 (dry skin, ex ZMUC P.4774) (Møller 2006).

_Genus name: Sciaena._

Species names (Forskål): –; (Fabricius in Niebuhr): hamrur, _abu hamur_.

_Arabic name (Latinised, Forskål, Fabricius in Niebuhr): Abu hamurr._

Remarks: In his draft, Forskål used the Arabic name ‘hamurr’ as a substitute for a Latin name possibly to be selected. He did not decide if this was an undescribed species at all. We cannot be certain if the data source for this description was by Forskål or Niebuhr or both; the description was compiled by Fabricius in Niebuhr (1775a) described the new species in two different versions, as _Sciaena hamrur_ on pp. 11 and 45, and as _Sciaena abu hamurr_ on p. 44. Though the latter version is not binominal and therefore not available (ICZN, Art. 5), the name is accompanied by a diagnosis and description on p. 45, and the version on p. 45 is binominal, thus the name would be available as _Sciaena hamrur_ Fabricius [ex Forskål] in Niebuhr, 1775, with the actual name _Priacanthus hamrur_ (Fabricius [ex Forskål] in Niebuhr, 1775), the authorship pending a decision of ICZN. The species was treated as valid since Bonnaterre (1788: 122) and Walbaum (1792: 310, _Sciaena abu hamurr_, 313, _Sciaena hamurr_). Bloch & Schneider (1801: 307) erroneously gave the name as _Antlias hamurr_.

_Apogonidae – Cardinalfishes_

_Cheilodipterus arabicus_ (Gmelin [ex Forskål], 1789)


_Forskål in Niebuhr_ (1775a: 42–43): “43. PERCA LINEATA; pinnis dorsis binis remotis: corpore argenteo, lineis nigris, longitudinalibus; macula caudae aurea, medio nigris.”

_Locality: “Djiddæ” (Jeddah, Juddah/Saudi Arabia)._

Remarks: This is not an independent new species description, as proposed by several authors, but an incorrect use of the species _Perca lineata_ (non Linnaeus, 1758), based on a misidentification; while the Linnaean _Perca lineata_ is based on the haemulid fish _Plectorhinchus lineatus_ (Linnaeus, 1758). The first available name for Forskål’s fish is _Perca abarica_ Gmelin [ex Forskål], 1789 (Gmelin 1789: 1312), which is now valid as _Cheilodipterus arabicus_ Gmelin [ex Forskål], 1789. The name _Cheilodipterus lineatus_ does not have the author _Forskål_ in Niebuhr, 1775, as assumed by several authors. The species was subsequently described as _Perca lineata_ by Walbaum (1792: 329–330), and as _Cheilodipterus lineatus_ by Lacepède [ex C. Mersson] (1801: 540, 542, pl. 34, fig. 1), a name considered as a senior synonym of _Centropomus macrodon_ which was described by Lacepède [ex C. Mersson] (1802: 252). _Cheilodipterus lineatus_ was believed by several authors to be a secondary homonym of _Perca lineata_ Forskål in Niebuhr, 1775, which is, however, not a species independent from _Perca lineata_ Linnaeus, 1758, but a misidentification (see Fricke 1999: 233), as both Forskål and Niebuhr had the 10th edition of Systema naturae by Linnaeus (1758) readily available (Niebuhr, 1775: 18), but did not give individual credit to the authors of their species names. Both names were frequently used, so the use of _Cheilodipterus lineatus_ (Linnaeus, 1758) as the valid name for the species recently named _Cheilodipterus macrodon_ by other authors (e.g. Gon & Randall 2003: 32–33), is obligatory.
Sillaginidae – Sillagos

“Sillago sihama” (Forsskål in Niebuhr, 1775)


Fabricius [ex Forsskål] in Niebuhr (1775a: 70): “[102. ATERI- NA sihama; pinnis V. subthoracici; radix D. pinnae prima undecim.”.

Type locality: “LOHALÉ” (Al-Luhayya/Yemen).

Type material: Holotype: ZMUC P.45164 (dry skin) (see Klause- witz & Nielsen 1965: 27, pl. 38; Möller 2006).

Genus name: Atherina.

Species name (Forsskål): –; (Fabricius in Niebuhr): sihama.

Arabic names (Latinised, Forsskål, Fabricius in Niebuhr): Si- hâmi, Sjhâmi.

Remarks: In his draft, Forsskål used the Arabic name ‘Sihâmi’ as a substitute for a Latin name to be selected. He did not decide if this was an undescribed species at all. We cannot be certain if the data source for this description was by Forsskål or Niebuhr or both; the description was compiled by Fabricius. The Forsskål specimen was labelled ‘Altherina sp.’ according to Klausewitz & Nielsen (1965: 27). Fabricius in Niebuhr described Atherina sihama as a new species; the name is binominal in both the index and text; the name was accompanied by a description, and therefore would be available as Atherina sihama Fabricius [ex Forsskål] in Niebuhr, 1775, with the actual name Sillago sihama (Fabricius [ex Forsskål] in Niebuhr, 1775), the authorship pending a decision of ICZN. The species was treated as valid since Bon- naterre (1788: 178–179).

Pomatomiidae – Bluefishes

Pomatomus saltatrix (Linne, 1766)


Fabricius [ex Forsskål] in Niebuhr (1775a: 38): “35. PERCA lophar; argentea; dorso dipterygio; pinnis ventralibus ad- natis.”.

Type locality: “CONSTANTINOPOLI” (Istanbul/Turkey).

Genus name: Perca.

Species name (Forsskål): –; (Fabricius in Niebuhr): lophar.

Turkish name (Forsskål): Lüfer. (Fabricius et al. 2007: 83).

Actual Turkish name: Lüfer (Fricke et al. 2007: 83).

Remarks: In his draft, Forsskål used the name ‘lofár’ or ‘lophar’ as a substitute for a Latin name to be selected. He did not decide if this was an undescribed species at all. We cannot be certain if the data source for this description was by Forsskål or Niebuhr or both; the description was compiled by Fabricius. Fabricius in Niebuhr described the species as Perca lophar. The name is binominal, accompanied by a diagnosis and description, and would be available as Perca lophar Fabricius [ex Forsskål] in Niebuhr, 1775, the authorship pending a decision of ICZN. The name was considered as valid by Walbaum (1792: 332), but is a junior synonym of Pomatomus saltatrix (Linne, 1766).

Coryphaenidae – Dolphinfishes

Coryphaena hippurus (Linnaeus, 1758)

Forsskål [ex Anonymus] in Niebuhr (1775a: XIX): “Coryphaena hippurus.”.

Locality: “Melita” (La Valletta/Malta). Local name: “I Lampu- ca”.

Remarks: The actual vernacular Maltese name of this species is “Lampuka” (Anonymous 2007b).

Echeneidae – Remoras

Echeneis naucrates Linnaeus, 1758


Localities: “Djiddæ” (Jeddah, Juddah/Saudi Arabia); “Lohajæ” (Al-Luhayya/Yemen).

Remarks: This is clearly the Linnaean name Echeneis naucrates or E. naucrates Linnaeus, 1758. In the area, species attached to sharks are either Echeneis naucrates Linnaeus, 1758 or Remora remora (Linnaeus, 1758), both of which were known to Linnaeus (1758) and should have been identifiable for Forsskål, so it is assumed that the identification was correct.

Remora remora (Linnaeus, 1758)


Locality: “Melita” (La Valletta/Malta).

Carangidae – Jacks

Carangidae, indet.


Locality: “Melita” (La Valletta/Malta). Local name: “I Serduk”.

Remarks: This is a misidentification of Zeus gallus (non Lin- naeus, 1758); Selene gallus (Linnaeus, 1758) is a West Atlantic species and does not occur in the Mediterranean Sea. As the name is listed without diagnosis or indication, the record cannot be assigned to genus or species level.

“Alepes djedaba” (Forsskål in Niebuhr, 1775)

Fabricius [ex Forsskål] in Niebuhr (1775a: XII): “75. [SCOM- BER] g) djedaba; cauda sine carinis. Djedaba. […, Arabic name].”

Fabricius [ex Forsskål] in Niebuhr (1775a: 56–57): “75. SCOMBER djedaba; albus, lateribus & caudae pinna fla- vis.”.

Type localities: “LOHALÉ,” (Al-Luhayya/Yemen); “DIJJDé” (Jeddah, Juddah/Saudi Arabia); “SUES” (As-Suways/Egypt).

Type material: Syntype: ZMUC P.46441 (dry skin) (erroneously listed as holotype by Klausewitz & Nielsen 1965: 22, pl. 26; Möller 2006; Eschmeyer 2007).

Genus name: Scromber.

Species name (Forsskål): –; (Fabricius in Niebuhr): djedaba.

Arabic names (Latinised, Forsskål, Fabricius in Niebuhr): Sus- nok, Djedaba, Bajad.

Remarks: In his draft, Forsskål used the Arabic name ‘djedaba’ as a substitute for a Latin name possibly to be selected. He did not decide if this was an undescribed species at all. We cannot be certain if the data source for this description was by Forsskål or Niebuhr or both; the description was compiled by Fabricius. Fabricius in Niebuhr (1775a) described it as Scromber djedaba in both the index and text; the name is accompanied by a diagnosis and description, and would be available as Scromber djedaba Fabricius [ex Forsskål] in Nie- buhr, 1775, with the actual name Alepes djedaba (Fabricius [ex Forsskål] in Niebuhr, 1775), the authorship pending a decision of ICZN. The species was treated as valid since
Carangoides armatus (Forsskål in Niebuhr, 1775)
Forsskål in Niebuhr (1775a: XII): “68. [SCIÆNA] z) ARMATA; nucha spinifera. Galemfish.”
Fabricius [ex Forsskål] in Niebuhr (1775): “68. SCIÆNA? ARMATA, GALEMFIISH. Facies Scombri. . .”.
Type locality: – (Red Sea).
Genus name: Sciaena.
Species names (Forsskål): armata; (Fabricius in Niebuhr): armata, galemfish.
Arabic name (Latinised, Forsskål): Galemfish.
Remarks: Forsskål intended to describe this species as Sciaena armata, and this is how it was named in the index on p. XII, but he was uncertain about the generic affiliation, and only doubtfully included it in Sciaena. Fabricius in Niebuhr described the species on p. 53 as Sciaena armata, galemfish. As Fabricius in Niebuhr (1775a) described two alternative names for the species, armata or galemfish, he did not clearly decide how to name the species, so the version on p. 53 is not available (ICZN, Art. 11.5). Both versions, however, are linked together by the species code ‘68’; the name on p. XII is thus accompanied by a brief description, and is available by indication (ICZN, Art. 12.2.2) as Sciaena armata Forsskål in Niebuhr, 1775. Sciaena armata was treated as valid since Bonnaterre (1788: 125) and Walbaum (1792: 319).

“Carangoides bajad (Forsskål in Niebuhr, 1775)”
Type locality: – (Red Sea).
Type material: Syntypes: ZMUC P.46437–46438 (2 dry skins, head of smaller specimen missing) (see Klauswitz & Nielsen 1965: 22, pl. 27; Moller 2006).
Genus name: Scomber.
Species/subspecies name (Forsskål): –; (Fabricius in Niebuhr): ferdau bajad.
Arabic names (Latinised, Forsskål, Fabricius in Niebuhr): Bajad; (Fabricius in Niebuhr): Abu saumsan, Hael.
Remarks: In his draft, Forsskål used the Arabic name ‘bajad’ as a substitute for a Latin name possibly to be selected. He did not decide if this was an undescribed species at all. We cannot be certain if the data source for this description was by Forsskål or Niebuhr or both; the description was compiled by Fabricius. Fabricius in Niebuhr (1775a) described it as a new variety in two versions, as Scomber ferdau var. β in the index on p. XII, and as Scomber ferdau bajad on p. 55. The name is accompanied by a short description, and would be available as Scomber bajad Fabricius [ex Forsskål] in Niebuhr, 1775, with the actual name Carangoides bajad (Fabricius [ex Forsskål] in Niebuhr, 1775), the authorship pending a decision of ICZN. This species was treated as valid since Walbaum (1792: 220).

“Carangoides ferdau (Forsskål in Niebuhr, 1775)”
Fabricius [ex Forsskål] in Niebuhr (1775a: XII): “71. [SCOMBER] d) FERDAU; ovale-oblongus, argenteus, guttis aureis lateralis; fascis transversi fascis quinque, obsoletis.”
Type locality: “Djiddæ” (Jeddah, Juddah/Saudi Arabia).
Type material: No types known. A specimen with the label saying holotype (ZMUC P.46442, as figured in Klauswitz & Nielsen 1965: 22, pl. 27; Moller 2006) is not this species.
Genus name: Scomber.
Species name (Forsskål): –; (Fabricius in Niebuhr): ferdau.
Arabic name (Latinised, Forsskål, Fabricius in Niebuhr): Ferdau.
Remarks: In his draft, Forsskål used the Arabic name ‘ferdau’ as a substitute for a Latin name possibly to be selected. He did not decide if this was an undescribed species at all. We cannot be certain if the data source for this description was by Forsskål or Niebuhr or both; the description was compiled by Fabricius. Fabricius in Niebuhr (1775a) described it as a new species as Scomber ferdau. The name is binominal in both the index and text, is accompanied by a diagnosis and description, and would be available as Scomber ferdau Fabricius [ex Forsskål] in Niebuhr, 1775, with the actual name Carangoides ferdau (Fabricius [ex Forsskål] in Niebuhr, 1775), the authorship pending a decision of ICZN. The species was treated as valid since Bonnaterre (1788: 141) and Walbaum (1792: 219–220).

Carangoides fulvoguttatus (Forsskål in Niebuhr, 1775)
Forsskål in Niebuhr (1775a: XII): “73. [SCOMBER] e) FULVO-GUTTATUS. Gæzz; […] Arabic name].
Forsskål in Niebuhr (1775a: 56): “73. SCOMBER FULVO-GUTTATUS; simillimus (S. 71) [Scomber ferdau] guttis aureis per latera frequentibus, orbiculatis, inordinatis; . . .”
Type locality: – (Red Sea).
Genus name: Scomber.
Species name (Forsskål, Fabricius in Niebuhr): fulvoguttatus.
Arabic name (Latinised, Forsskål, Fabricius in Niebuhr): Gæzz.
Remarks: This species was described by both Forsskål and Fabricius in Niebuhr as Scomber fulvoguttatus; the name is binominal, and accompanied by a diagnosis and description; it is available as Scomber fulvoguttatus Forsskål in Niebuhr, 1775. The species has been treated as valid since Walbaum (1792: 220). Caranx gaezz Lacepéde [ex Forsskål], 1801 (Lacepédia: 1801: 59, 75–76, misspelled Caranx gæzz on p. 59) is an unneeded new name for Scomber fulvoguttatus Forsskål in Niebuhr, 1775; it is available, but a junior synonym.

Caranx ignobilis (Forsskål in Niebuhr, 1775)
Fabricius [ex Forsskål] in Niebuhr (1775a: 55–56): “72. SCOMBER IGNOBILIS, KIRM; argenteus; dorsor curulesecente; pinnis pectoralis & ventralibus rufescentibus; fascis transversis fascijs quinque, obsoletis; . . .”
Type localities: “Djiddæ” (Jeddah, Juddah/Saudi Arabia); “Lo-haje” (Al-Luhayya/Yemen).
Type material: Syntypes: ZMUC P46439–46440 (2 dry skins, extremely poor condition) (see Klauswitz & Nielsen 1965: 22, pl. 26; Moller 2006).
Genus name: Scomber.
Species names (Forsskål): ignobilis; (Fabricius in Niebuhr): ignobilis, kirm.
Arabic names (Latinised, Forsskål): Kirm, Djarm, Girb, Kòrab (smaller), Dlijm (larger); (Fabricius in Niebuhr): Kirb.
Remarks: Forsskål intended to describe this species as Scomber ignobilis, and this is how it was named in the index on p. XII. Fabricius in Niebuhr described the species on pp. 54–55 as Scomber ignobilis, kirm. As Fabricius in Niebuhr (1775a) described two alternative names for the species, ignobilis or
kirm, he did not clearly decide how to name the species, so the version on pp. 55–56 is not available (ICZN, Art. 11.5). Both versions, however, are linked together by the species code ‘22;’ the name on p. XII is thus accompanied by a diagnosis and description, and is available by indication (ICZN, Art. 12.2.2) as Scomber ignobilis Forsskål in Niebuhr, 1775. The species was treated as valid since Bonnaterre (1788: 142) and Walbaum (1792: 218).

Caranx ignobilis (Forsskål in Niebuhr, 1775)
Fabricius [ex Commerson] in Niebuhr (1775a: 56): “74. Scomber sansan; argenteo-nitens, immaculatus; cauda carina elata, aequalis.”
Type locality: “Lohaie” (Al-Luhayya/Yemen).
Genus name: Scomber.
Species name (Forsskål): –; (Fabricius in Niebuhr): sansan.
Arabic names (Latinised, Forsskål, Fabricius in Niebuhr): Abu sansan, Abu laja, Bagbe, Dheirak, Bockas.
Remarks: In his draft, Forsskål used the Arabic name ‘sansan’ as a substitute for a Latin name possibly to be selected. He did not decide if this was an undescribed species at all. We cannot be certain if the data source for this description was by Forsskål or Niebuhr or both; the description was compiled by Fabricius. Fabricius in Niebuhr (1775a) described it as Scomber sansan in both the index and text; the name is binominal, accompanied by a diagnosis and description, and would be available as Scomber sansan Fabricius [ex Forsskål] in Niebuhr, 1775, the authorship pending a decision of ICZN. It was treated as valid by Bonnaterre (1788: 142) and Walbaum (1792: 217). According to C. B. Klunzinger (unpublished manuscript, SMNS, ca. 1883), Scomber sansan is a junior synonym of Caranx ignobilis (Forsskål in Niebuhr, 1775).

Gnathanodon speciosus (Forsskål in Niebuhr, 1775)
Forsskål in Niebuhr (1775a: XII): “70. [Scomber] b speciosus; aureus, fasciis nigris alternis. Rim. [...] Arabic name.”
Fabricius [ex Forsskål] in Niebuhr (1775a: 54–55): “70. SCOMBER RIM, SPECIOSUS; pallide aureus; fasciis verticis obliquis; corporis septem nigris, alternis.”
Type locality: “Diddé” (Jeddah, Juddah/Saudi Arabia).
Genus name: Scomber.
Species names (Forsskål): speciosus; (Fabricius in Niebuhr): rim, speciosus.
Arabic name (Latinised, Forsskål, Fabricius in Niebuhr): Rim.
Remarks: Forsskål intended to describe this species as Scomber speciosus, and this is how it was named in the index on p. XII. Fabricius in Niebuhr described the species on pp. 54–55 as Scomber rim, speciosus. As Fabricius in Niebuhr (1775a) described two alternative names for the species, rim or speciosus, he did not clearly decide how to name the species, so the version on pp. 54–55 is not available (ICZN, Art. 11.5). Both versions, however, are linked together by the species code ‘70;’ the name on p. XII is thus accompanied by a diagnosis and description, and is available by indication (ICZN, Art. 12.2.2) as Scomber speciosus Forsskål in Niebuhr, 1775. The species was treated as valid since Bonnaterre (1788: 143) and Walbaum (1792: 217–218).

Lichia amia (Linnaeus, 1758)
Locality: “Melita” (La Valletta/Malta).

“Scomberoides lyan” (Forsskål in Niebuhr, 1775)
Fabricius [ex Forsskål] in Niebuhr (1775a: XII): “69. SCOMBER a) lysan; spinis d. 7, distinctis. Lysan.”
Fabricius [ex Forsskål] in Niebuhr (1775a: 54): “69. SCOMBER lysan; albido-maculatus; spinis dorsalibus septem primis separatis.”
Type localities: “Djidde” (Jeddah, Juddah/Saudi Arabia); “Lo-hajæ” (Al-Luhayya/Yemen).
Type material: Lectotype: ZMUC P.46435 (dry skin), as designated by Klausewitz & Nielsen (1965: 22; see also pl. 25); paralectotype: ZMUC P.46436 (dry skin) (Møller 2006).
Genus name: Scomber.
Species name (Forsskål): –; (Fabricius in Niebuhr): lysan.
Arabic names (Latinised, Forsskål, Fabricius in Niebuhr): Mys-sief, Lysan, Öbri.
Remarks: In his draft, Forsskål used the Arabic name ‘lysan’ as a substitute for a Latin name possibly to be selected. He did not decide if this was an undescribed species at all. We cannot be certain if the data source for this description was by Forsskål or Niebuhr or both; the description was compiled by Fabricius. Fabricius in Niebuhr (1775a) described it as a new species as Scomber lyan. The name is binominal in both the index and text, is accompanied by a diagnosis and description, and would be available as Scomberoides lyan Fabricius [ex Forsskål] in Niebuhr, 1775, the authorship pending a decision of ICZN. The species was treated as valid by Bonnaterre (1788: 140), Gmelin (1789: 1325, Gasterosteus lyanus), and Walbaum (1792: 216–217). Centronotus lyanus is not an independent species description, but an incorrect subsequent spelling by Lapèpède (1801: 309, 316–317).

Trachinotus blochii (Lacépède [ex Commerson], 1801)
Forsskål in Niebuhr (1775a: XII): “76. [SCOMBER] h) falcatus; pinna dorsi & ani falcata. Hogel. [...] Arabic name.”
Forsskål in Niebuhr (1775a: 57): “76. SCOMBER FALCATUS; rhomboïdalis; pinna secunda dorsi & ani falcata.”
Localities: “Diddé” (Jeddah, Juddah/Saudi Arabia); “Lohaie” (Al-Luhayya/Yemen).
Forsskål material (no types as no new species description): NRM 16675 (1 dry), ZMUC P.46444 and 46445 (2 dry skins) (see Klausewitz & Nielsen 1965: 22; Møller 2006).
Remarks: This is not an independent species description, but a misidentification of Labrus falcatus (non Linnaeus, 1758), which was here placed in the genus Scomber [currently used name Trachinotus falcatus (Linnaeus, 1758)]. The subsequent usage as Scomber falcatus Bonnaterre [ex Forsskål], 1788 (Bonnaterre 1788: 142–143) and other authors is neither available. The first available name of the species is Caesionarius blochii Lacépède [ex Commerson], 1801, with the currently used name Trachinotus blochii (Lacépède [ex Commerson], 1801).

Trachinotus ovatus (Linnaeus, 1758)
Locality: “Melita” (La Valletta/Malta).
Remarks: This record is based on Scomber glaucus Linnaeus, 1758, which is a synonym of Gasterosteus ovatus Linnaeus, 1758.

Trachurus mediterraneus (Steindacher, 1868)
Locality: “Melita” (La Valletta/Malta). Local Maltese name: “Savrela.”
Trachurus ponticus Aleev, 1956


Locality: – (Istanbul/Turkey).

Actual Turkish name: İstavrit (Frckle et al. 2007: 85).

Remarks: This is a misidentification of the species Scomber trachurus (non Linnaeus, 1758), according to the Turkish name, the record is based on Trachurus ponticus (Aleev, 1956), a species which is a migrant regularly found in shallow water around Istanbul. The specimen recorded by Forskål was probably collected by the fishing vessel which he chartered in Constantinople/Istanbul.

Leiognathidae – Ponyfishes

Leiognathus berbis (Valenciennes [ex Forskål] in Cuvier & Valenciennes, 1835)


FORSKÅL in NIEBUHR (1775a: 58): “77. [SCOMBER equula] b); DidiDe Mellett; Lohaje Berbis; […, Arabic name] A priore differt: Magnitudine, …”.

Type localities: “Dijdade” (Jeddah, Juddah/Saudi Arabia); “Lohaja” (Al-Luhayya/Yemen).

Genus name: Scomber.

Species/subspecies name (FORSKÅL): equula minimus; (FABRICIUS IN NIEBUHR): –.

Arabic names (Latinised, FORSKÅL, FABRICIUS IN NIEBUHR): Mellett, Berbis.

Remarks: This species was described by FORSKÅL AND FABRICIUS IN NIEBUHR in two versions, as Scomber equula minimus in the index on p. XII, and as Scomber equula var. “b” in the text on p. 58. Both versions are linked together by the species code ‘77b;’ the name is therefore accompanied by a diagnosis/description, and is available by indication (ICZN, Art. 12.2.2) as Scomber equula minimus Forskål in NIEBUHR, 1775. Unfortunately, this is an unused senior synonym of the species described as Equula berbis by Valenciennes [ex FORSKÅL] IN CUVIER & VALENCIENNES (1835: 85), with the latter name being an unnecessary new name for Scomber equula minimus of FORSKÅL IN NIEBUHR (1775a). The unused name Scomber equula minimus is here rejected according to the preamble and Art. 23.2 of ICZN; however, a petition to the International Commission on Zoological Nomenclature will be needed to suppress the name Scomber equula minimus Forskål in NIEBUHR, 1775 and retain the name Equula berbis Valenciennes [ex FORSKÅL] IN CUVIER & VALENCIENNES, 1835 for this species, which is currently considered as valid, with the currently used name Leiognathus berbis (Valenciennes [ex FORSKÅL] IN CUVIER & VALENCIENNES, 1835). The species was subsequently named Scomber mellett Walbaum [ex FORSKÅL], 1792 (WALBAUM 1792: 220–221); this is another senior synonym of Equula berbis, and needs suppression by the Commission as well.

Leiognathus equulus (Forskål in NIEBUHR, 1775)

FORSKÅL in NIEBUHR (1775a: XII): “[77. SCOMBER e] equula; gibbo duplici. Abu kurse. […] (Arabic name).”

FORSKÅL in NIEBUHR (1775a: 58): “77. SCOMBER equula; pin-nulis pinnaque dorsis connatis.”

Type locality: – (Red Sea).

Type material: Lectotype: ZMUC P.48219 (dry skin), as designated by KLAUSEWITZ & NIELSEN (1965: 23); paralectotype: ZMUC P.48220 (dry skin) (MOLLER 2006).

Genus name: Scomber.

Species name (FORSKÅL, FABRICIUS IN NIEBUHR): equula.

Arabic name (Latinised, FORSKÅL, FABRICIUS IN NIEBUHR): Abu kurse.

Remarks: This species was described by both FORSKÅL and FABRICIUS IN NIEBUHR as Scomber equula; the name is binominal in both the index and text, is accompanied by a diagnosis, and is therefore available as Scomber equula Forskål in NIEBUHR, 1775. The species was treated as valid since BONNATERRE (1788: 141) and WALBAUM (1792: 220).

Lutjanidae – Snappers

Lutjanus argenticulatus (Forskål in NIEBUHR, 1775)

FORSKÅL in NIEBUHR (1775a: XI): “50. [SCIÆNA] g) ARGENTIMACULATA; dentibus fastigiatis. Scháafen. […, Arabic name].”

FORSKÅL in NIEBUHR (1775a: 47–48): “50. SCIÆNA ARGENTIMACULATA; Arab. Scháafen. […] (Arabic name).”

Type locality: – (Red Sea).

Genus name: Sciaena.

Species name (FABRICIUS IN NIEBUHR): argenticulata; (FABRICIUS IN NIEBUHR): argenti-maculata, argenticulata.

Arabic name (Latinised, FORSKÅL, FABRICIUS IN NIEBUHR): Scháafen.

Remarks: This new species was described by both FORSKÅL AND FABRICIUS IN NIEBUHR as Sciaena argenticulata. The name is binominal in both the index and text, accompanied by a diagnosis and description, and available as Sciaena argenticulata Forskål in NIEBUHR, 1775. The species was treated as valid since BONNATERRE (1788: 123) and WALBAUM (1792: 313). Sciaena argenticulae Gmelin [ex Forskål], 1789 (Gmeln 1789: 1300–1301) is an unused new name for Sciaena argenticulata Forskål in NIEBUHR, 1775, and a junior synonym. Perca argenticulae of BLOCH & SCHNEIDER (1801: 86) is not an independent new species description, but a change of the generic assignment of Sciaena argenticulae Gmelin; it cannot be treated as a primary homonym of Perca argenticulae Bloch, 1792 (BLOCH 1792: 86, pl. 311, fig. 1) from Japan.

“Lutjanus bohar (Forskål in NIEBUHR, 1775)”

FABRICIUS [ex FORSKÅL] IN NIEBUHR (1775a: XI): “47. [SCIÆNA] d) bohar; dorso recto. Bohar. […] (Arabic name).”

FABRICIUS [ex FORSKÅL] IN NIEBUHR (1775a: 44): “[SCIÆNA … 2) BOHAR. a) OMINES hæ SCIÆNE MACULA GAUDENT NIGRA SUB JUNCTURA PINNARUM DORS. b) IMMACULÆ, ….”

FABRICIUS [ex FORSKÅL] IN NIEBUHR (1775a: 46): “47. SCIÆNA BOHAR: rubesc. lineis nebulosis albidos.”

Type locality: – (Red Sea).

Type material: Holotype: ZMUC P.4779 (see KLAUSEWITZ & NIELSEN 1965: 19, pl. 14; MOLLER 2006).

Genus name: Sciaena.

Species names (FORSKÅL): –; (FABRICIUS IN NIEBUHR): bohar, hobar.

Arabic names (Latinised, FORSKÅL, FABRICIUS IN NIEBUHR): Bohár, Bhrá.

Remarks: In his draft, FORSKÅL used the Arabic name “bohár” as a substitute for a Latin name possibly to be selected. He did not decide if this was an undescribed species at all. We cannot be certain if the data source for this description was by FORSKÅL OR NIEBUHR; the description was compiled by FABRICIUS. FABRICIUS IN NIEBUHR (1775a) described it as a new species in two different versions, as Sciaena bohar on
is a spelling error. The name *Sciaena hobar* is binomial in both the index and text, accompanied by a diagnosis and description, and would be available as *Sciaena hobar* Fabricius [ex Forsskål] in Niebuhr, 1775, with the actual name *Lutjanus hobar* (Fabricius [ex Forsskål] in Niebuhr, 1775), the authorship pending a decision of ICZN. This species was treated as valid since Bonnaterre (1788: 122–123) and Walbaum (1792: 314).

*Lutjanus fulviflamma* (Forsskål in Niebuhr, 1775)

**Forsskål in Niebuhr** (1775a: XI): “45. SCLÆNA b) fulviflamma. *Abu noqta*, […, Arabic name].”

**Forsskål in Niebuhr** (1775a: 45–46): “45. SCLÆNA fulviflamma; pinnis dorsalisibus connexis; flavicans, macula laterali nigra: vittis longitudinalibus aureis.”

**Type locality:** – (Red Sea).

**Type material:** Lectotype: ZMUC P.4775 (dry skin), as designated by KLausewitz & Nielsen (1965: 18; see also pl. 12); paralektotype: ZMUC P.4776 (dry skin) (Moller 2006).

**Genus name:** *Sciaena*.

**Species name (Forsskål, Fabricius in Niebuhr):** fulviflamma.

**Arabic names (Latinised, Forsskål, Fabricius in Niebuhr):** Abu noqta, حبار。

**Remarks:** This new species was described by both Forsskål and Fabricius in Niebuhr as *Sciaena fulviflamma*. The name is binomial in both the index and text, accompanied by a diagnosis and description, and available as *Sciaena fulviflamma* Forsskål in Niebuhr, 1775; it was treated as valid since Bonnaterre (1788: 120) and Walbaum (1792: 316). *Centropomus hobar* Lacepède [ex Forsskål], 1802 (Lacepède 1802: 248, 255–256, 263–264) is an unneeded new name for *Sciaena fulviflamma* Forsskål in Niebuhr, 1775; it is available, but a junior synonym.

*Lutjanus gibbus* (Forsskål in Niebuhr, 1775)


**Forsskål in Niebuhr** (1775a: 46–47): “48. SCLÆNA Gibba; rubens, albo-guttata, dorso gibbo.”

**Type locality:** – (Red Sea).

**Genus name:** *Sciaena*.

**Species name (Forsskål, Fabricius in Niebuhr):** gibba.

**Arabic names (Latinised, Forsskål, Fabricius in Niebuhr):** Nagil, ناغيل, Asmâ‘.

**Remarks:** This new species was described by both Forsskål and Fabricius in Niebuhr as *Sciaena gibba*. The name is binomial in both the index and text, accompanied by a diagnosis and description, and available as *Sciaena gibba* Forsskål in Niebuhr, 1775; the species was treated as valid since Bonnaterre (1788: 123) and Walbaum (1792: 314). – *Sciaena gibbosa* of Shaw (1803: 539) is not an independent species description, but a spelling error for *Sciaena gibba*.

“*Lutjanus kasmira* (Forsskål in Niebuhr, 1775)”


**Fabricius [ex Forsskål] in Niebuhr** (1775a: 46): “46. SCLÆNA kasmira; flavescent, vittis utrinque caraeulis quattuor majoribus.”

**Type locality:** – (Red Sea).

**Type material:** Lectotype: ZMUC P.4777 (dry skin), as designated by KLausewitz & Nielsen (1965: 18; see also 11–19, pl. 13); paralektotype: ZMUC P.4778 (dry skin) (Moller 2006).

**Genus name:** *Sciaena*.

**Species name (Forsskål):** –; *(Fabricius in Niebuhr): kasmira.*

Arabic names (Latinised, Forsskål, Fabricius in Niebuhr): Kasjmiri, تكسيري.

**Remarks:** In his draft, Forsskål used the Arabic name ‘Kasjmiri’ as a substitute for a Latin name possibly to be selected. He did not decide if this was an undescribed species at all. We cannot be certain if the data source for this description was by Forsskål or Niebuhr or both; the description was compiled by Fabricius. *Fabricius in Niebuhr* described *Sciaena kasmira* as a new species; it is binomial in both the index and text, accompanied by a diagnosis and description, and would be available as *Sciaena kasmira* Fabricius [ex Forsskål] in Niebuhr, 1775, with the actual name *Lutjanus kasmira* (Fabricius [ex Forsskål] in Niebuhr, 1775), the authorship pending a decision of ICZN. This species was treated as valid since Bonnaterre (1788: 122) and Walbaum (1792: 314–315).

*Macolor niger* (Forsskål in Niebuhr, 1775)

**Forsskål in Niebuhr** (1775a: XI): “49. [SCLÆNA] f) nigr. *Gatie*. […, Arabic name].”

**Forsskål in Niebuhr** (1775a: 47): “49. SCLÆNA nigra; tota nigra, ventre fusco-albescente.”

**Type locality:** “Dide‘” (Jeddah, Juddah/Saudi Arabia).

**Type material:** Holotype (or syntype): ZMUC P.4780 (see KLausewitz & Nielsen 1965: 19, pls. 14–15; Moller 2006). Another Forsskål specimen attributed to *Sciaena nigra* (ZMUC P.4781), which may be another syntype, is based on *Lutjanus sp*.

**Genus name:** *Sciaena*.

**Species name (Forsskål, Fabricius in Niebuhr):** nigra.

**Arabic name (Latinised, Forsskål, Fabricius in Niebuhr):** Gatie.

**Remarks:** This new species was described by both Forsskål and Fabricius in Niebuhr as *Sciaena nigra*. The name is binomial in both the index and text, accompanied by a diagnosis and description, and available as *Sciaena nigra* Forsskål in Niebuhr, 1775; the species was treated as valid by Bonnaterre (1788: 123) and later authors.

**Gerreidae — Mojarra**

“Gerres oeyena” (Forsskål in Niebuhr, 1775)


**Fabricius [ex Forsskål] in Niebuhr** (1775a: 35): “29. LABRUS öyena; corpore argenteo; radiis dorsalisibus 2–5 subinermibus.”

**Type localities:** “LOHAJE” (Al-Luhayya/Yemen); “SUES” (As-Suways/Egypt); “Dide‘” (Jeddah, Juddah/Saudi Arabia).

**Type material:** Lectotype: ZMUC P.48209 (listed as holotype by Eschmeyer 2007), selected by KLausewitz & Nielsen 1965: 16; see also 16–17, pl. 7; Moller 2006).

**Genus name:** *Labrus*.

**Species name (Forsskål, Fabricius in Niebuhr):** oeyena.

**Arabic names (Latinised, Forsskål):** Abu öyena, كيكرف.

**Remarks:** In his draft, Forsskål used the Arabic name ‘oeyena’ as a substitute for a Latin name to be selected. He did not decide if this was an undescribed species at all. We cannot be certain if the data source for this description was by Forsskål or Niebuhr or both; the description was compiled by Fabricius. *Fabricius in Niebuhr* described the new species as *Labrus oeyena*; as the ‘ö’ is the Latin equivalent of ‘oe’, the species name must be spelled ‘oeyena’. The name is binomial both in index and text, is accompanied by a diagnosis and description, and therefore would be available as *Labrus*...

Remarks: In his draft, FÖRSSKÅL used the Arabic name ‘Gaterin’ as a substitute for a Latin name possibly to be selected. He did not decide if this was an undescribed species at all. We cannot be certain if the data source for this description was by FÖRSSKÅL or NIEBUHR or both; the description was compiled by FABRICIUS. FABRICIUS in NIEBUHR described the species as Sciaena gaterina; the name is binominal in both the index and text, is accompanied by a diagnosis and description, and would be available as Sciaena gaterina Förskål [ex Förskål] in Niebuhr, 1775, with the actual name Plectorrhinchus gaterinus (Fabricius [ex Förskål] in Niebuhr, 1775), the authorship pending a decision of ICZN. The species was treated as valid since BONNATERRE (1788: 124) and WALBAUM (1792: 315). Sciaena gaterina of Fabricius [ex Förskål] in Niebuhr (1775a: 45) is a misspelling of Sciaena gaterina.

“Plectorrhinchus gaterinus” (Förskål in Niebuhr, 1775)”


Type locality: – (Red Sea).

Type material: Syntypes: ZMUC P.48216 (1 dry skin); ZMUC P.48217 (1 dry skin) (see KLAUSEWITZ & NIELSEN 1965: 20; MÖLLER 2006).

Genus name: Sciaena.

Sciaena gaterina minor (Fabricius in Niebuhr, 1775)

Arabic name (Latinised, FÖRSSKÅL): Abu Mgaterin.

Remarks: In his draft, FÖRSSKÅL apparently used the subspecies Sciaena gaterina minor for this taxon, as listed in the index on p. XII. He did not decide if this was an undescribed species at all. We cannot be certain if the data source for this description was by FÖRSSKÅL or NIEBUHR or both; the description was compiled by FABRICIUS. FABRICIUS in NIEBUHR described the species as Sciaena abu-mgaterin, obviously confusing the Arabic name with the species name. Sciaena gaterina minor is linked to Sciaena abu-mgaterin on p. 51 by the species code ‘51b’; it is therefore accompanied by a diagnosis and description, and would be available by indication (ICZN, Art. 12.2.2) as Sciaena gaterina minor Förskål in Niebuhr, 1775 (which is not included in ESHCHEMEYER 2007), the authorship pending a decision of ICZN. This species was considered to be valid since WALBAUM (1792: 315, Sciaena abu-mgaterin), but is a synonym (the juvenile form) of “Plectorrhinchus gaterinus” (Förskål in Niebuhr, 1775). GMELEN (1789: 1303) was the first reviser, choosing Sciaena gaterina as the senior synonym.

Plectorrhinchus schotaf (Walbaum [ex Förskål], 1792)


Type locality: – (Red Sea).

Type material: Lectotype: ZMUC P.48214 (dry skin, listed as holotype by MÖLLER 2006), as designated by KLAUSEWITZ & NIELSEN (1965: 20; see also pl. 19); paratype: ZMUC P.48215 (dry skin) (MÖLLER 2006).

Genus name: Sciaena.

Hæmulidae – Grunts

“Plectorrhinchus gaterinus” (Förskål in Niebuhr, 1775)”

FABRICIUS [ex FÖRSSKÅL] in NIEBUHR (1775a: XII): “[59. SCLÉNA] q) gaterina; fusco-guttata Gaterin. [...] Arabic name].”

FABRICIUS [ex FÖRSSKÅL] in NIEBUHR (1775a: 45): “[59. SCLÉNA … 6) gaterin, operculis posterioribus inermibus.”

FABRICIUS [ex FÖRSSKÅL] in NIEBUHR (1775a: 50): “[59. SCLÉNA gaterina; flavido-caeruleascens, nigro-guttata, maculis spar-sis].”

Type locality: “DIDOE” (Jeddah, Juddah/Saudi Arabia).

Type material: Lectotype: ZMUC P.48212 (dry skin), as designated by KLAUSEWITZ & NIELSEN (1965: 20; see also pl. 18); paratype: ZMUC P.48215 (dry skin) (MÖLLER 2006).

Genus name: Sciaena.


Remarks: In his draft, FÖRSSKÅL used the Arabic name ‘Gaterin’ as a substitute for a Latin name possibly to be selected. He did not decide if this was an undescribed species at all. We cannot be certain if the data source for this description was by FÖRSSKÅL or NIEBUHR or both; the description was compiled by FABRICIUS. FABRICIUS in NIEBUHR described the species as Sciaena gaterina; the name is binominal in both the index and text, is accompanied by a diagnosis and description, and would be available as Sciaena gaterina Förskål [ex Förskål] in Niebuhr, 1775, the authorship pending a decision of ICZN. The species was treated as valid since BONNATERRE (1788: 124) and WALBAUM (1792: 315). Sciaena gaterina of Fabricius [ex Förskål] in Niebuhr (1775a: 45) is a misspelling of Sciaena gaterina.

Gerres longirostris (Lacepède [ex Commerson], 1801)


Type locality: – (Red Sea, Al Luhayya/Yemen?).

Type material: Lectotype: ZMUC P.48212 (dry skin), as designated by KLAUSEWITZ & NIELSEN (1965: 20; see also pl. 18); paratype: ZMUC P.48215 (dry skin) (MÖLLER 2006).

Genus name: Labrus.

Species/subspecies name (FÖRSSKÅL): –; (FABRICIUS in NIEBUHR): öyena gasa.

Arabic name (Latinised, FÖRSSKÅL, FABRICIUS in NIEBUHR): Gasa.

Remarks: In his draft, FORSSKÅL used the Arabic name ‘gasa’ as a substitute for a Latin name to be selected for a subspecies of Labrus (öyena). He did not decide if this was an undescribed species at all. We cannot be certain if the data source for this description was by FORSSKÅL or NIEBUHR or both; the description was compiled by FABRICIUS. FABRICIUS in NIEBUHR described the new taxon as Labrus öyena gasa in the index on p. XI, but omitted the subspecies name on p. 35 and only cited it as the Arabic name. ESHCHEMEYER (2007) believes the name is not available as it was listed without a scientific name. However, the name is described as a subspecies name in the index, and accompanied by a diagnosis there; the species was not collected at Gasa, as ESHCHEMEYER stated, but ‘Gasa’ was the Arabic name. Despite the fact that it is not mentioned explicitly in the text on p. 35, a little more detail is given there, and both index and text are linked together; the name would be available by indication (ICZN, Art. 12.2.2) from the subspecies description in the index as Labrus öyena gasa Fabricius [ex FORSSKÅL] in Niebuhr, 1775, the authorship pending a decision of ICZN (considered as valid as Labrus gasa by WALBAUM 1792: 241). According to the diagnosis, this is an unused senior synonym of Labrus longirostris Lacepède [ex Commerson] 1801, which has the currently used name Gerres longirostris (Lacepède [ex Commerson], 1801). In order to preserve the latter name, a petition to the International Commission on Zoological Nomenclature will be needed.
Species/subspecies name (FORSSKål): –; (FABRICIUS in NIEBUHR): – (schotaf or sofat as Arabic names).

Arabic names (Latinised, FORSSKål, FABRICIUS in NIEBUHR): Schotaf, Sofat.

Remarks: Neither FORSSKål nor FABRICIUS in NIEBUHR provided a name for this form; they described it as Sciæna gaterina γ in the index on p. XII, and Sciæna gaterina ε on p. 51. The name “Schotaf” is clearly marked as Arabic name in the index, separated from the species name by a diagnosis; “Schotaf” or “Sofat” are clearly marked as Arabic names, and not scientific species/subspecies names, in the text on p. 51, and even if “schotaf” would be interpreted as a species/subspecies name, it would not be available because FABRICIUS [ex FORSSKål] in NIEBUHR (1775a) would then have described it as either Sciæna gaterina schotaf or Sciæna gaterina sofat, and therefore did not clearly decide which name they intended to use. Gmelin (1789: 1303) listed Sciæna Sofat as a junior synonym of Sciæna Gaterina, which makes his Sciæna sofat not available as mentioned in synonymy, and not considered as valid by subsequent authors (ICZN, Art. 11.5, 11.6.2). The first available version of the name is as Sciæna schotaf Walbaum [ex FORSSKål], 1792 (WALBAUM 1792: 315). It is a valid species with the currently used name Plectorrhinchus schotaf (Walbaum [ex FORSSKål], 1792). The name was missspelled as Diagramma shotaf by RüPELL (1830: 126).

Plectorrhinchus schotaf (Walbaum [ex FORSSKål], 1792)


Type locality: – (Red Sea, probably Jeddah).

Genus name: Sciæna.

Species/subspecies name (FORSSKål): –; (FABRICIUS in NIEBUHR): gaterina fætæla.

Arabic name (Latinised, FORSSKål, FABRICIUS in NIEBUHR): Faetela.

Remarks: In his draft, FORSSKål used the Arabic name ‘Faetela’ as a substitute for a Latin name possibly to be selected. He did not decide if this was an undescribed species at all. We cannot be certain if the data source for this description was by FORSSKål or NIEBUHR or both; the description was compiled by FABRICIUS in NIEBUHR described the subspecies as Sciæna gaterina fætæla; the name is accompanied by a diagnosis and description, and would be available as Sciæna fætæla Fabricius [ex FORSSKål] in NIEBUHR, 1775, the authorship pending a decision of ICZN; judging on the description, it is conspecific with Plectorrhinchus schotaf (Walbaum [ex FORSSKål], 1792), which is a major problem as it would be a senior synonym of that species. In order to preserve stability of nomenclature, a petition to the International Commission on Zoological Nomenclature will be necessary to suppress the name Sciæna fætæla Fabricius [ex FORSSKål] in NIEBUHR, 1775. This species was subsequently missspelled Diagramma fætæla by RüPELL (1830: 126), and Diagramma fætæla by KLUNZINGER (1870: 737–738). This species was subsequently named Sciæna maxima Walbaum [ex FORSSKål], 1792 (WALBAUM 1792: 318–319); this is another synonym of Plectorrhinchus schotaf and needs suppression by the Commission as well.

Pomadasys argenteus (FORSSKål in NIEBUHR, 1775)

FABRICIUS in NIEBUHR (1775a: XII): “60. [SCIÆNA] r] argentea; nigro-guttata. Nagem. […, Arabic name]”.

FABRICIUS [ex FORSSKål] in NIEBUHR (1775a: 51): “60. SCIÆNA ARGENTEÆ, NAGEB; guttis nigris in corporis dimido superiori.”

Type locality: “DIIDDE” (Jeddah, Judah/Saudi Arabia); – “Alis” (Red Sea).


Genus name: Sciæna.

Species names (FORSSKål): argentea; (FABRICIUS in NIEBUHR): nageb.

Arabic name (Latinised, FORSSKål): Nagem; (FABRICIUS in NIEBUHR): Nageb.

Remarks: FORSSKål planned to name this species Sciæna argentea, and this is how the species is listed in the index on p. XII. FABRICIUS in NIEBUHR described it in the text on p. 51 as Sciæna argentea, nageb. The name is binomial in the index, but in the text, two alternative names are proposed, argentea or nageb. Both index and text are linked together by the species code ‘60’; the name is accompanied by a diagnosis and description, and is available by indication (ICZN, Art. 12.2.2) as Sciæna argentea FORSSKål in NIEBUHR, 1775 (Sciæna nageb, however, is not available). This species was considered as valid since WALBAUM (1792: 317–318). The species was subsequently named Sciæna nageb Bonnaterre [ex FORSSKål], 1788 (BONNATERRE 1788: 121), which is a junior synonym. The Pristipoma nageb of RüPELL (1838: 124, pl. 30, fig. 2) is not an independent new species description (as erroneously assumed by ESCHMeyer 2007), but based in part on FORSSKål in NIEBUHR’s description, and on BONNATERRE’s Sciæna nageb. – Perca argentata Bloch & Schneider [part: ex Gmelin, FORSSKål], 1801 (BLOCH & SCHNEIDER 1801: 86) was subsequently based on this species and on Sciæna argentimaculata (see above, Lutjanus argentimaculatus); and is an unneeded junior synonym of the latter species; it is also a primary homonym of Perca argentata Bloch, 1792 (BLOCH 1792: 86, pl. 311, fig. 1) from Japan.

Pomadasys stridens (FORSSKål in NIEBUHR, 1775)


FABRICIUS in NIEBUHR (1775a: 50): “58. SCIÆNA STRIDENS; Arab. Korkor vel Gorgor […, Arabic name]”.

FORSSKål locality: – (Red Sea).

Type locality: Massawa, Eritrea, Red Sea (as defined by neo-type).

Type material: Neotype: HUJ F.6708, as designated by IWATSUKI et al. (1995: 459).

Genus name: Sciæna.

Species name (FORSSKål, FABRICIUS in NIEBUHR): stridens.

Arabic names (Latinised, FORSSKål, FABRICIUS in NIEBUHR): Korkor, Gorgor.

Remarks: This species was described by both FORSSKål and FABRICIUS in NIEBUHR as Sciæna stridens; the name is binomial in both the index and text, is accompanied by a description, and is therefore available as Sciæna stridens FORSSKål in NIEBUHR, 1775; the species was treated as valid since BONNATERRE (1788: 121) and WALBAUM (1792: 317). Perca korkor Lacepède [ex FORSSKål], 1802 (LACEPÈDE 1802: 397, 418–421; misspelled Perca koker on p. 397) is an unneeded new name for Sciæna stridens FORSSKål in NIEBUHR, 1775; it is available, but a junior synonym.
Nemipteridae – Threadfin breams

“Scolopsis ghanam (Forsskål in Niebuhr, 1775)”

Fabricius [ex Forsskål] in Niebuhr (1775a: XII): “56. [SCIÆNA n] ghanam. [...] Arabic name”.

Fabricius [ex Forsskål] in Niebuhr (1775a: 44): “SCIÆNA ... 4) ghanan.”

Fabricius [ex Forsskål] in Niebuhr (1775a: 50): “56. SCIÆNA ghanam; albida, lateribus utrinque vitta gemina, alba.”

Type localities: “Djiddæ” (Jeddah, Juddah/Saudi Arabia); “Lo-hajæ” (Al-Luhayya/Yemen).

Type material: Synotype: ZMUC P.4782 (dry skin) (listed as holotype by Eschmeyer 2007) (see Klausfritz & Nielsen 1965: 19, pl. 17; Møller 2006).

Genus name: Sciæna.

Species name (Forsskål): – (Fabricius in Niebuhr): ghanam.

Arabic names (Latinised, Forsskål, Fabricius in Niebuhr): Abu m’sämmer, Ghanam.

Remarks: In his draft, Forsskål used the Arabic name ‘Ghanam’ as a substitute for a Latin name to be selected. He did not decide if this was an undescribed species at all. We cannot be certain if the data source for this description was by Forsskål or Niebuhr or both; the description was compiled by Fabricius. Fabricius in Niebuhr (1775a) did not give a variety name in the index, but printed ‘dib’ as the variety name in the text, though explicitly stating that this is an Arabic name (“Arab.”). Though the name was accompanied by a brief diagnosis, it is not available as Sciæna ramak obsoleta dib Fabricius in Niebuhr, 1775, because the subspecies name consisted of two words and was therefore not trinomial (ICZN, Art. 5), and because the variety name was not meant to be a scientific name, but clearly indicated to be the Arabic name. The species was subsequently named Sciæna dib by Gmelin [ex Forsskål] in 1789 (Gmelin 1789: 1305), based on Forsskål in Niebuhr’s (1775a) diagnosis; it would be available as Sciæna dib Gmelin [ex Forsskål], 1789. This species was considered as valid by Walbaum (1792: 310), but is not identifiable within the genus Lethrinus. It would be recommendable to have this name suppressed by a petition to the International Commission on Zoological Nomenclature.

Lethrinidae – Emperors

Lethrinidae, indet.


Type locality: – (Red Sea).

Genus name: Sciæna.

Species/subspecies name (Forsskål): [Var. b]; (Fabricius in Niebuhr): nebulosa violaceo-fasciata.

Arabic name (Latinised, Forsskål, Fabricius in Niebuhr): Abu hamrūr.

Remarks: In his draft, Forsskål listed this as variety ‘b’ without a scientific variety name. He did not decide if this was an undescribed species at all. We cannot be certain if the data source for this description was by Forsskål or Niebuhr or both; the description was compiled by Fabricius. Fabricius in Niebuhr (1775a) did not give a variety name in the text, but printed ‘violaceo-fasciata’ as the variety name in the index. The name was accompanied by a brief diagnosis, and would be available as Sciæna nebulosa violaceofasciata Fabricius in Niebuhr, 1775, the authorship pending a decision of ICZN. This species is not identifiable within the family Lethrinidae.

Lethrinus sp.

Forsskål in Niebuhr (1775a: XII): “[64. SCIÆNA v) OBSELOTA] b) lamina maxillaris. Dib.”


Type locality: – (Red Sea).

Type material: No types known. Material may be among ZMUC P.49350 or P.49351.

Genus name: Sciæna.

Species/subspecies name (Forsskål): – (Fabricius in Niebuhr): ramak obsoleta dib.

Arabic name (Latinised, Forsskål, Fabricius in Niebuhr): Dib.

Remarks: In his draft, Forsskål listed this as variety ‘b’ without a scientific variety name. He did not decide if this was an undescribed species at all. We cannot be certain if the data source for this description was by Forsskål or Niebuhr or both; the description was compiled by Fabricius. Fabricius in Niebuhr (1775a) did not give a variety name in the index, but printed ‘dib’ as the variety name in the text, though explicitly stating that this is an Arabic name (“Arab.”). Though the name was accompanied by a brief diagnosis, it is not available as Sciæna ramak obsoleta dib Fabricius in Niebuhr, 1775, because the subspecies name consisted of two words and was therefore not trinomial (ICZN, Art. 5), and because the variety name was not meant to be a scientific name, but clearly indicated to be the Arabic name. The species was subsequently named Sciæna dib by Gmelin [ex Forsskål] in 1789 (Gmelin 1789: 1305), based on Forsskål in Niebuhr’s (1775a) diagnosis; it would be available as Sciæna dib Gmelin [ex Forsskål], 1789. This species was considered as valid by Walbaum (1792: 310), but is not identifiable within the genus Lethrinus. It would be recommendable to have this name suppressed by a petition to the International Commission on Zoological Nomenclature.

Lethrinus sp.


Type locality: – (Red Sea).

Type material: No types known. Material may be among ZMUC P.49350 or P.49351.

Genus name: Sciæna.

Species/subspecies name (Forsskål): – (Fabricius in Niebuhr): ramak obsoleta suli.


Remarks: In his draft, Forsskål listed several Arabic names of this variety of Sciæna obsoleta, but did not assign a scientific variety name. He did not decide if this was an undescribed species at all. We cannot be certain if the data source for this description was by Forsskål or Niebuhr or both; the description was compiled by Fabricius. Fabricius in Niebuhr (1775a) used ‘suli’ as the variety name in the index, but not in text. Though both index and text versions are linked to each other by the species code ‘64v’ or ‘64c’, Sciæna obsoleta suli Fabricius in Niebuhr, 1775 is neither accompanied by a diagnosis nor a description, and therefore not available. It is not identifiable within the genus Lethrinus.

“Lethrinus harak (Forsskål in Niebuhr, 1775)”

Fabricius [ex Forsskål] in Niebuhr (1775a: XII): “[63. SCIÆNA u) harak; pinnis rubris. Abu m’harak.”

Fabricius [ex Forsskål] in Niebuhr (1775a: 52): “[63. SCIÆNA HARA DIB; virescens, pinnis pallide rubris; macula utrinque nigra linea infra lineam lateralem.”

Type locality: – (Red Sea).
Type material: Lectotype: ZMUC P.49348 (dry skin), as designated by KLAUSEWITZ & NIELSEN (1965: 21; see also pl. 22) (listed as syntype by MOLLER 2006); paratype: ZMUC P.49349 (dry skin) (MOLLER 2006).

Genus name: *Sciaena*.

Species name (FORSSKål): – (FABRICIUS in NIEBUHR): harák.

Arabic name (Latinised, FORSSKål): Abu m’härak; (FABRICIUS in NIEBUHR): Abu m’harrak.

Remarks: In his draft, FORSSKål used the Arabic name “M’hárak” or “harák” as a substitute for a Latin name possible to be selected. He did not decide if this was an undescribed species at all. We cannot be certain if the data source for this description was by FORSSKål or NIEBUHR or both; the description was compiled by FABRICIUS. FABRICIUS in NIEBUHR described the species as *Sciaena harák*; the name is binominal in both the index and text, is accompanied by a diagnosis and description, and would be available as *Sciaena harák* Fabrícius [ex FORSSKål] in NIEBUHR, 1775, 1775, the authorship pending a decision of ICZN. The species was treated as valid since BONNATERRE (1788: 124) and WALBAUM (1792: 312).

“Lethrinus mahsena (FORSSKål in NIEBUHR, 1775)”

FABRICIUS [ex FORSSKÅL] in NIEBUHR (1775a: XII): “62. [SCIÆNA] t mahsena; transversissimi fasciata Mobseni. [..., Arabic name]”.


Type locality: “Capta ad promontorium Dijmūm” (Ra’a Baridi, NNW Yanbu’, Saudi Arabia, 24°17’N 37°31’E).

Type material: Lectotype: ZMUC P.49346 (dry skin), as designated by KLAUSEWITZ & NIELSEN (1965: 21; see also pl. 21); paratype: ZMUC P.49347 (dry skin) (MOLLER 2006).

Genus name: *Sciaena*.


Arabic names (Latinised, FORSSKÅL): Júmr mohseni, Sööbi, Hösi; Mhbseni; (FABRICIUS in NIEBUHR): Mobseni.

Remarks: In his draft, FORSSKål used the Arabic name ‘Mahešnē’ as a substitute for a Latin name possibly to be selected. He did not decide if this was an undescribed species at all. We cannot be certain if the data source for this description was by FORSSKål or NIEBUHR or both; the description was compiled by FABRICIUS. FABRICIUS in NIEBUHR described the species as *Sciaena mahsena*; the name is binominal in both the index and text, is accompanied by a diagnosis and description, and would be available as *Sciaena mahsena* Fabrícius [ex FORSSKål] in NIEBUHR, 1775, 1775, the authorship pending a decision of ICZN; it is a valid species. This species was subsequently named *Sciaena masehna* by WALBAUM (1792: 310, 715); this is not an independent species description, but a spelling error.

*Lethrinus nebulosus* (FORSSKål in NIEBUHR, 1775)


FABRICIUS [ex FORSSKÅL] in NIEBUHR (1775a: 52): “61. SCIÆNA NEBULOSA, HAMRUR; At. Schaur. [..., Arabic name] Alis Bónkose. [..., Arabic name]”.

Type locality: – (Red Sea), – “Alis” (Red Sea).

Type material: Syntype: ZMUC P.49345 (dry skin) (see KLAUSEWITZ & NIELSEN 1965: 21, pl. 20) (listed as holotype by MOLLER 2006 and ESCHMEYER 2007).

Genus name: *Sciaena*.

Species names (FORSSKål): nebulosa; (FABRICIUS in NIEBUHR): nebulosa, hamrur.

Arabic names (Latinised, FORSSKål): Scháur, Bó nkose; (FABRICIUS in NIEBUHR): Schaur.

Remarks: FORSSKål intended to describe this species as *Sciaena nebulosa*, and this is how it was named in the index on p. XII. FABRICIUS in NIEBUHR described the species on p. 52 as *Sciaena nebulosa, hamrur*; the name ‘hamrur’ was confused with the variety ‘b’, which has the Arabic name ‘Abu hamrur’, a name that does not apply to the nominal form *Sciaena nebulosa*. As Fabrícius in NIEBUHR (1775a) described two alternative names for the species, *nebulosa or hamrur*, he did not clearly decide how to name the species, so the version on p. 52 is not available (ICZN, Art. 11.5). Both versions, however, are linked together by the species code ‘61’; the name on p. XII is thus accompanied by a diagnosis and description, and is available by indication (ICZN, Art. 12.2.2) as *Sciaena nebulosa* FORSSKål in NIEBUHR, 1775. The species was treated as valid since BONNATERRE (1788: 124) and WALBAUM (1792: 310).

*Lethrinus obsoletus* (FORSSKål in NIEBUHR, 1775)

FORSSKål in NIEBUHR (1775a: XII): “64. [SCIÆNA] v obsoleta; flavo-violaceo-lineata Ramak [...] Arabic name”.

FABRICIUS [ex FORSSKÅL] in NIEBUHR (1775a: 52–53): “64. SCIÆNA RAMAK, OBSEOLATA; albidovirescens, lineis longitudinalibus obsoletis, violaceo-flaventibus; pinnis rubentibus.”.

Type locality: – (Red Sea).

Type material: Lectotype: ZMUC P.49352 (dry skin), as designated by KLAUSEWITZ & NIELSEN (1965: 21; see also pl. 23); paratype: ZMUC P.49353 (dry skin) (MOLLER 2006).

Genus name: *Sciaena*.

Species names (FORSSKål): obsoleta; (FABRICIUS in NIEBUHR): ramak, obsoleta.

Arabic name (Latinised, FORSSKål, FABRICIUS in NIEBUHR): Ramak.

Remarks: FORSSKål intended to describe this species as *Sciaena obsoleta*, and this is how it was named in the index on p. XII. FABRICIUS in NIEBUHR described the species on pp. 52–53 as *Sciaena ramak, obsoleta*. As Fabrícius in NIEBUHR (1775a) described two alternative names for the species, *ramak or obsoleta*, he did not clearly decide how to name the species, so the version on pp. 52–53 is not available (ICZN, Art. 11.5). Both versions, however, are linked together by the species code ‘64’; the name on p. XII is thus accompanied by a diagnosis and description, and is available by indication (ICZN, Art. 12.2.2) as *Sciaena obsoletus* FORSSKål in NIEBUHR, 1775. The species was treated as valid since BONNATERRE (1788: 124), who also acted as the first reviser of this case, and chose the name *obsoletus* as having priority over ramak.

*Monotaxis grandoculis* (FORSSKål in NIEBUHR, 1775)

FORSSKål in NIEBUHR (1775a: XII): “65. [SCIÆNA] w grandoculis; caruleescens. Abu ajin. [..., Arabic name]”.

FORSSKål in NIEBUHR (1775a: 53): “65. SCIÆNA GRANDOCULUS; caruleescens: labio inferiore gibbo.”.

Type locality: “Dídi dæ” (Jeddah, Juddah/Saudi Arabia).

Genus name: *Sciaena*.

Species name (FORSSKÅL, FABRICIUS IN NIEBUHR): grandoculis.

Arabic name (Latinised, FORSSKÅL, FABRICIUS IN NIEBUHR): Abu ajin.

Remarks: This species was described by both FORSSKål and FABRICIUS in NIEBUHR as *Sciaena grandoculis*; the name is binominal in both the index and text, is accompanied by a description, and is therefore available as *Sciaena grandoculis* FORSSKål in NIEBUHR, 1775. The species was treated as
valid since Bonnaterre (1788: 125) and Walbaum (1792: 311–312).

Sparidae – Porgies

“Acanthopagrus berda (Forsskål in Niebuhr, 1775)”


Type locality: “Lohaje” (Al-Luhayya/Yemen).

Type material: Holotype: ZMUC P.50555 (see Klausewitz & Nielsen 1965: 16, pl. 6; Møller 2006).

Genus name: Sparus.

Species name (Forsskål): –; (Fabricius in Niebuhr): berda.

Arabic names (Latinised, Forsskål, Fabricius in Niebuhr): Abu basal, Nezi, Berda.

Remarks: In his draft, Forsskål did not give a species name, but used ‘berda’ as a substitute for a Latin name possibly to be selected. He did not decide if this was an undescribed species at all. We cannot be certain if the data source for this description was by Forsskål or Niebuhr or both; the description was compiled by Fabricius, Fabricius in Niebuhr described the species as Sparus berda; the name is binomial in both the index and text, is accompanied by a diagnosis and description, and therefore would be available as Sparus berda.”

This species is ‘lopa’ (Fabricius in Niebuhr, 1775, type by Forsskål, considered as valid since Forsskål in Niebuhr, 1775), the name is binominal in both the index and text, is accompanied by a diagnosis and description, and is therefore available as Sparus spinifer Forsskål in Niebuhr, 1775; it is in part a valid species (considered as valid since Walbaum 1792: 299–300), now named Argyrops spinifer (Forsskål in Niebuhr, 1775). Turkish and Egyptian records of Sparus spinifer by Forsskål in Niebuhr (1775a: XI, part) are based on Pagrus sp. (see below). A neotype needs to be selected for this species in order to stabilise the usage as Argyrops spinifer.

Boops boops (Linnaeus, 1758)


Localities: “Smirna?” (Izmir/Turkey); “Alexandria” (Alexandria, Al-Iskandarlyah/Egypt, Mediterranean Sea).


Genus name: Sparus.

Actual Turkish names: Kupez, lopa (Fricke et al. 2007: 86).

Remarks: This is not an independent new species description, but a misidentification of Sparus canthus (non Linnaeus, 1758); the record is based on Boops boops (Linnaeus, 1758). This species is common in the Marmara Sea near Istanbul and the Aegean Sea near Izmir in Turkey; it was probably collected by Forsskål using a chartered fishing vessel at Constantinople/Istanbul. One of the actual Turkish names of the species is ‘lopa’ (Fricke et al. 2007: 86), which resembles the ‘vupa’ recorded by Forsskål.

Boops boops (Linnaeus, 1758)


Locality: “Melita” (La Valletta/Malta).

Crenidens crenidens (Forsskål in Niebuhr, 1775)


Type localities: “Djidde” (Jeddah, Juddah/Saudi Arabia); “Suès” (As-Suways/Egypt).

Type material: Syntype: ZMUC P.50551 (probably from Jeddah) (see Klausewitz & Nielsen 1965: 16, pl. 5) (listed as holotype by Møller 2006).

Genus name: Sparus.

Species name (Forsskål, Fabricius in Niebuhr): crenidens.

Arabic names (Latinised, Forsskål, Fabricius in Niebuhr): Rasan, Boreis, Ersan.

Remarks: This species was described by both Forsskål and Fabricius in Niebuhr as Sparus crenidens; the name is binominal in both the index and text, is accompanied by a diagnosis and description, and is therefore available; it is a valid species, now named Crenidens crenidens (Forsskål in Niebuhr, 1775). The species was named Sparus crenidens by Walbaum (1792: 303, 716); this is not an independent species description, but a spelling error. It was subsequently described as Crenidens forskali Valenciennes in Cuvier & Valenciennes, 1830 (Valenciennes in Cuvier & Valenciennes 1830: 378), which is a junior synonym of Crenidens crenidens.
Fabricius in Niebuhr (1775a: XVII): “55. [Sciaena] naqua; piscis maris rubri obscurus; (an Sciaena 48?)’.

Locality: – (Red Sea).
Remarks: Forskål in Niebuhr (1775a) used the Arabic name ‘naqua’ as a substitute for a scientific name possibly to be selected for this species, doubtfully arranged in the genus Sciaena, and possibly thought conspecific with Sciaena gibba (species code ‘48’). Fabricius in Niebuhr (1775a) used (Sciaena?) naqua to name a species which was insufficiently diagnosed, not meant to be a new species with certainty, and therefore not available as Sciaena naqua Fabricius in Niebuhr, 1775. The record was probably based on the sparid fish Cheimerius nufar (Valenciennes in Cuvier & Valenciennes, 1830). The name Naqua was erroneously interpreted by ESCHMEYER (2007) to be a subgenus of Sciaena, and considered a species of Lutjanus.

Dentex sp.
Locality: “Melita” (La Valletta/Malta). Local name: “Il Dentici”.
Remarks: The record of the Linnaean species name Dentex dentex from Malta cannot be assigned to species level; the record could have been based on either Dentex dentex (Linnaeus, 1758), Dentex gibbosus (Rafinesque-Schmaltz, 1810), Dentex macrophthalmus (Bloch, 1791) or Dentex maroccanus Valenciennes in Cuvier & Valenciennes, 1830 (actual vernacular Maltese name “Denci”); Anonymous 2007b).

Diplodus annularis (Linnaeus, 1758)
Locality: “Turtle” (Turkey); “Alexandria” (Alexandria, Al-Iskandariyah/Egypt, Mediterranean Sea).
Actual Turkish names: Isparoz, Ispari (Fricke et al. 2007: 87).
Remarks: This is a record of the Linnaean species Diplodus annularis; its currently used name is Diplodus annularis (Linnaeus, 1758). The species frequently occurs in the Marmara Sea near Istanbul and the Aegean Sea near Izmir in Turkey.

Diplodus annularis (Linnaeus, 1758)
Locality: “Melita” (La Valletta/Malta). Local Maltese name: “Il Spargu”.
Remarks: Sparus sparus Forskål [ex Anonymous] in Niebuhr, 1775 is a name only (nomen nudum), as it was listed with neither a diagnosis nor an indication. The name is not included in ESCHMEYER (2007). According to the Maltese name, the record has been based on Diplodus annularis (Linnaeus, 1758) (actual vernacular Maltese name “Sparlu”; Anonymous 2007b).

Diplodus sargus (Linnaeus, 1758)
Locality: – (Turkey).
Remarks: This is a record of the Linnaean species Diplodus sargus; its currently used name is Diplodus sargus (Linnaeus, 1758), with the actual Turkish name ‘Sargoz’ (Fricke et al. 2007: 87). The species frequently occurs in the Marmara Sea near Istanbul and the Aegean Sea near Izmir in Turkey.

Lithognathus mormyrus (Linnaeus, 1758)
Locality: – (Turkey?).
Remarks: This is a record of the Linnaean species Sparus mormyrus; its currently used name is Lithognathus mormyrus (Linnaeus, 1758), with the actual Turkish name ‘Mirmir’ (Fricke et al. 2007: 87). The species frequently occurs in the Marmara Sea near Istanbul and the Aegean Sea near Izmir in Turkey.

Oblada melanura (Linnaeus, 1758)
Locality: – (Turkey?); “Alexandria” (Alexandria, Al-Iskandariyah/Egypt, Mediterranean Sea); “Melita” (La Valletta/Malta).
Remarks: These records are based on the Linnaean species Sparus melanurus; its currently used name is Oblada melanura (Linnaeus, 1758). This species frequently occurs in the Marmara Sea near Istanbul and the Aegean Sea near Izmir in Turkey (Fricke et al. 2007: 88), and in other parts of the Mediterranean Sea.

Pagellus erythrinus (Linnaeus, 1758)
Locality: “Melita” (La Valletta/Malta). Local name: “Il Pagella”.
 Remarks: This record under the Linnaean name Sparus erythrinus from Malta has actually been based on Pagellus erythrinus (Linnaeus, 1758), according to the Maltese name (actual vernacular Maltese name “Pagella”; Anonymous 2007b).

Pagrus sp.
Locality: “Melita” (La Valletta/Malta). Local name: “Il Pagru”.
Remarks: This record under the Linnaean name Sparus pagrus from Malta cannot be assigned to species level; the record could have been based on either Pagrus auriga Valenciennes, 1843 or Pagrus caeruleostictus (Valenciennes in Cuvier & Valenciennes, 1830), both bearing the actual vernacular Maltese name “Pagru” (Anonymous 2007b).

Pagrus sp.
Type localities: “Constantiopolis” (Istanbul/Turkey); “Damiata” (Dumyāt/Egypt); (part).
Remarks: Sparus spinifer Forskål in Niebuhr, 1775 was in part described from Constantinople/Istanbul, Turkey; according to the presence of filaments in the dorsal fin, and the Turkish name (actual Turkish name ‘Mercan’), it could be based on either of the two species of Pagrus occurring in the Marmara Sea and Bosporus in the area (Fricke et al. 2007: 88): Pagrus auriga Valenciennes, 1843 (Çizgili mercan), or Pagrus caeruleostictus (Valenciennes in Cuvier & Valenciennes, 1830) (Antenli mercan). Both species are today no longer known from Marmara Sea, but do occur in the Aegean Sea. Red Sea materials of Sparus spinifer belong to a valid species, Argyrops spinifer (Forskål in Niebuhr, 1775). A neotype needs to be selected for this species in order to fix the usage as Argyrops spinifer.
Pagrus caeruleopectus (Valenciennes in Cuvier & Valenciennes, 1830)


Locality: “Turc.” (İzmir/Turkey).

Actual Turkish name: Antenli mercan (Fabricius ex Forsskål, 1775).

Remarks: This is a misidentification of the species Sparus pagrus (non Linnaeus, 1758); according to the Turkish name and the diagnosis, the record is based on Pagrus caeruleopectus (Valenciennes in Cuvier & Valenciennes, 1830), a species which is regularly found in the Aegean Sea near İzmir/Turkey, but not in the Marmara Sea near Istanbul. The Turkish name of the co-occurring Pagrus pagrus (Linnaeus, 1758) is ‘Fangri’ (Fricke et al. 2007: 88).

“Rhabdosargus haffara” (Forskal in Nieuwh, 1775)


Type locality: (Red Sea).

Genus name: Sparus.

Species name (Forskål): –; (Fabricius in Nieuwh: haffara).

Arabic name (Latinised, Forskål): Haffâra; (Fabricius in Nieuwh: Hafıâra).

Remarks: In his draft, Forskål used ‘Haffara’ as a substitute name for a Latin name to be selected. He did not decide if this was an underspecified name at all. We cannot be certain if the data source for this description was by Forskål or Nieuwh or both; the description was compiled by Fabricius. Fabricius in Nieuwh described it as a new species Sparus haffara. The name is binominal in both the index and text, and accompanied by a description; it would therefore be valid as Sparus haffara Fabricius [ex Forskål in Nieuwh, 1775, with the actual name Rhabdosargus haffara] (Fabricius [ex Forskål] in Nieuwh, 1775), the authorship pending a decision of ICZN, and was treated as valid since Bonnaterre (1788: 101) and Walbaum (1792: 203).

Rhabdosargus sarba (Gmelin [ex Forskål], 1789)


Type localities: “Diddé” (Jeddah, Juddah/Saudi Arabia); “Suénsium” (As-Suways/Egypt).

Type material: Lectotype: ZMUC P.50553 (said to be a holotype by Eschmeyer 2007) (dry skin), as designated by Klaus-witz & Nielsen (1965: 16, see also pls. 5–6); paratype: ZMUC P.50554 (dry skin) (Møller 2006).

Genus name: Sparus.

Species names (Forskål): – (argentea); (Fabricius in Nieuwh): sarba or salpa.

Arabic names (Latinised, Forskål, Fabricius in Nieuwh): Arid, Kosar, Sarba.

Remarks: Forskål was not sure if this was a new species or a record of Sparus salpa Linnaeus, 1758 from the Red Sea; he used the Arabic name ‘sarba’ as a substitute for a Latin name eventually to be selected, if this turned out to be a new species. Fabricius in Nieuwh mentioned in the text that this is either a new species Sparus sarba, or Sparus salpa. As neither Forskål nor Fabricius were sure of the identity of the new species, but used two alternative names, the name Spa-rus sarba Fabricius [ex Forskål] in Nieuwh, 1775 is not available. The first available version of the name is Sparus sarba Gmelin [ex Forskål], 1789 (Gmelin 1789: 1275). The species was considered as valid since Walbaum (1792: 294–205).

Sarpa salpa (Linnaeus, 1758)

Forskal [ex Anonymus] in Nieuwh (1775a: XV): “SARPAUS a) salpa. Σάλπα.”


Localities: – (İstanbul or İzmir, Turkey); “Melita” (La Valletta/Malta). Local Maltese name: “I Scilpa”.

Sparus aurata Linnaeus, 1758


Locality: “Melita” (La Valletta/Malta).

Spondyliosoma canthus (Linnaeus, 1758)

Forskal in Nieuwh (1775a: XV): “16. [SPARUS] d) Μαυρόψαρο: lineatus, ovalis; cauda bifida; vertice latvi; corpore albo, lineis flavicantibus intercnetis in medio latere. […]”

Type locality: – (İstanbul or İzmir, Turkey).

Genus name: Sparus.

Species name (Forskål): –; (Fabricius in Nieuwh). Μαυρόψαρο.

Remarks: While Forskål used the Greek name ‘Μαυρόψαρο’ as a substitute for a Latin name possibly to be selected, Fabricius in Nieuwh took the name to describe it as a new species. However, as the name is not in Latin characters, it is not available. Sparus Μαυρόψαρο is an unavailable junior synonym of Sparus canthus Linnaeus, 1758; its currently used name is Spondyliosoma canthus (Linnaeus, 1758). This species was subsequently described as Sparus mauropsarus Walbaum [ex Forskål], 1792 (Walbaum 1792: 301) and Sparus mauropsaro Bloch & Schneider [ex Forskål], 1801 (Bloch & Schneider 1801: 279), based on Forskal’s Sparus Μαυρόψαρο; Sparus mauropsaro is a junior synonym of Spondyliosoma canthus (Linnaeus, 1758). Eschmeyer (2007) erroneously gave the type locality of Sparus mauropsaro Bloch & Schneider as ‘Red Sea’, but it is western Turkey. Parenti in Eschmeyer (2007), also erroneously, gave the identity of Sparus mauropsaro Walbaum as Rhabdosargus sarba (non Gmelin [ex Forskål], 1789).

Spondyliosoma canthus (Linnaeus, 1758)


Type localities: “Turc.” (Turkey); “Alexandria” (Alexandria, Al-Iskandariyah/Egypt, Mediterranean Sea).

Genus name: Sparus.

Species name (Forskål): –; (Fabricius in Nieuwh): strigilis.

Remarks: While Forskål, in his draft, used the Greek name ‘Στρόγγιλο’ as a substitute for a Latin name possibly to be selected, Fabricius in Nieuwh used the Sparus strigilis to describe it as a new species. The name is binominal and accompanied by a diagnosis; it would therefore be available as Sparus strigilis Fabricius [ex Forskål] in Nieuwh, 1775, the authorship pending a decision of ICZN. The name was subsequently spelled Sparus strongilis by Bloch & Schneider (1801: 285). Sparus strongilis Fabricius [ex Forskål] in Nieuwh, 1775 is a junior synonym of Sparus canthus Linnaeus, 1758.
**Spondylosoma canthus** (Linnaeus, 1758)
**Forskal** [ex Anonymus] in **Niebuhr** (1775a: XVII): “[SPARUS] canthus.”
Locality: “Melita” (La Valetta/Malta).

**Centrachidae** – Picarel porgies

**Spicara maena** (Linnaeus, 1758)
**Forskal** in **Niebuhr** (1775a: XV): “21. [SPARUS] i maena. Σηρόδα.”
**Forskal** [ex Anonymus] in **Niebuhr** (1775a: XVIII): “[SPARUS] maenas.”
Localities: – (Turkey?); “Melita” (La Valetta/Malta). Local Maltese name: “Il Minnula”.
Remarks: Both records are based on the Linnaean species **Sparus maena**, which is a valid species with the currently used name **Spicara maena** (Linnaeus, 1758). The species frequently occurs at İstanbul and Izmir in Turkey; the specimen which forms the basis of the record on p. XV was probably collected by Forskal with the chartered fishing vessel at Constantinople/Istanbul, Turkey. The species name ‘maenas’ is a spelling error for ‘maena’, not an independent naming of the species.

**Spicara smaris** (Linnaeus, 1758)
**Forskal** [ex Anonymus] in **Niebuhr** (1775a: XIX): “[SPARUS] smaris.”
Locality: “Melita” (La Valetta/Malta).

**Sciaenidae** – Drums

Sciaenidae, indet.
**Forskal** [ex Anonymus] in **Niebuhr** (1775a: XVIII): “[SCIAEN] umbrina.”
Type locality: “Melita” (La Valetta/Malta).
Remarks: This is a name only (nomen nudum), as it was accompanied by neither a diagnosis, nor a description or indication. Therefore, the name is not available as **Sciaena umbrina** Forskal in Niebuhr, 1775. The species is unidentifiable within the family Sciaenidae.

**Sciaena umbra** Linnaeus, 1758
**Forskal** [ex Anonymus] in **Niebuhr** (1775a: XVIII): “[SCIAEN] umbra.”
Locality: “Melita” (La Valetta/Malta).

**Mullidae** – Goatfishes

**Mullus surmuletus** Linnaeus, 1758
**Forskal** [ex Anonymus] in **Niebuhr** (1775a: XVIII): “MULLUS surmuletus.”
Localities: “Constantinopolis” (İstanbul/Turkey); “Melita” (La Valetta/Malta).
Actual Turkish name: Tekir (Fricke et al. 2007: 90).
Remarks: The Turkish record is a misidentification of the species **Mullus barbatus** (non Linnaeus, 1758); according to the Turkish name, the record is based on **Mullus surmuletus** Linnaeus, 1758, a species which is regularly found in shallow water around İstanbul. The specimen recorded by Forskal was probably collected by the fishing vessel which he chartered in Constantinople/Istanbul. **Mullus barbatus** has the actual Turkish name ‘Barbun’ (Fricke et al. 2007: 90). From Malta, **Mullus surmuletus** is given as a name only, so we cannot be sure if it was correctly identified.

**Parupeneus forsskali** (Fourmanoir & Guézé [ex Forsskål], 1976)
**Forskal** in **Niebuhr** (1775a: X): “19. MULLUS a) auriflamma; vittis aureis. Ambr. [...] Arabic name”.
**Forskal** in **Niebuhr** (1775a: 30): “19. MULLUS auriflamma: cirris duobus albis, vitta utriuque fulva; dorso fuso aeneo: cauda pinna flavo, immacula.”
Type locality: “DiDiddae” (Jeddah, Jeddah/Saudi Arabia).
Type material: Holotype: ZMUC P.49343 (see KlauserWitz & Nielsen 1965: 14–15, pl. 4; Møller 2006).
Genus name: **Mullus**.
Species name (**Forskal, Fabricius in Niebuhr**): **auriflamma**.
Arabic name (Latinised, **Forskal, Fabricius in Niebuhr**): **Ambr**.
Remarks: This species was described by both **Forskal** and **Fabricius in Niebuhr** as **Mullus auriflamma**; as the name would have been available and might have threatened its commonly used junior synonym *Upeneus vanicolensis* Valenciennes in Cuvier & Valenciennes, 1831, **Mullus auriflamma** Forskal, 1775 was placed on Official Index of Rejected Names in Opinion 846 (Anonymus 1968). *Pseudopeineus forsskali* Fourmanoir & Guézé, 1976 (Fourmanoir & Guézé 1976: 45) was described as a replacement name for **Mullus auriflamma**; the species has the currently used name **Parupeneus forsskali** (Fourmanoir & Guézé [ex Forskal], 1976). **Mullus auriflamma** was erroneously placed in the synonymy of *Mullolchthys vanicolensis* (Valenciennes in Cuvier & Valenciennes, 1831) by authors, including Randall (2005: 293) and Eschmeyer (2007).

**Upeneus vittatus** (Forskal in Niebuhr, 1775)
**Forskal** in **Niebuhr** (1775a: X): “20. [MULLUS] b) vittatus; quinque-fasciatus. Abu dagn. [..., Arabic name]”.
**Forskal** in **Niebuhr** (1775a: 31): “20. MULLUS vittatus: cirris geminis: corporis vittis utriuque duabus fuscis, tribus flavis: pinna cauda oblique fuscata.”
Type locality: “DiDiddae” (Jeddah, Jeddah/Saudi Arabia).
Type material: Holotype: ZMUC P.49344 (dry skin) (see KlauserWitz & Nielsen 1965: 15–16, pl. 4; Møller 2006).
Genus name: **Mullus**.
Species name (**Forskal, Fabricius in Niebuhr**): **vittatus**.
Arabic name (Latinised, **Forskal, Fabricius in Niebuhr**): **Abu dagn**.
Remarks: This species was described by both **Forskal** and **Fabricius in Niebuhr** (1775a) as **Mullus vittatus**; the name is binominal in both the index and text, is accompanied by a diagnosis and description, and is therefore available. The species was treated as valid since Bonnaterre (1788: 144) and Walbaum (1792: 620).

**Monodactylidae** – Moonfishes

**Monodactylus argenteus** (Linnaeus, 1758)
**Forskal** in **Niebuhr** (1775a: XII): “78. [SCOMBER] k) rhombeus; Abu gurr. [...] Arabic name”.
**Forskal** in **Niebuhr** (1775a: 58): “78. SCOMBER rhombeus: pinnis ventralibus uni-radiatis.”
Type locality: “DiDiddae” (Jeddah, Jeddah/Saudi Arabia).
Type material: Holotype: ZMUC P.50536 (dry skin) (see KlauserWitz & Nielsen 1965: 23, pl. 29; Møller 2006).
Genus name: **Scomber**.
Species name (**Forskal, Fabricius in Niebuhr**): **rhombeus**.
Arabic names (Latinised, FORSSKÅL, FABRICIUS in NIEBUHR): Abu gurr, Abu tabak.

Remarks: This species was described by both FORSSKÅL and FABRICIUS in NIEBUHR as Scomber rhombus; the name is binominal in both text and index, is accompanied by a diagnosis and description, and therefore available as Scomber rhombus FORSSKÅL in NIEBUHR, 1775. The name was considered as valid by WALBAUM (1792: 221–222). It is, however, a junior synonym of Monodactylus argenteus (LINNAEUS, 1758).

**Kyphosus cinerascens** (FORSSKÅL in NIEBUHR, 1775)

FORSSKÅL in NIEBUHR (1775a: XII): “66. [SCIÆNA] x) cinerascens. Tähmel. [..., Arabic name]."


Type locality: – (Red Sea).

Genus name: Sciaena.

Species names (FORSSKÅL): cinerascens; (FABRICIUS in NIEBUHR): tähmel.

Arabic name (Latinised, FORSSKÅL, FABRICIUS in NIEBUHR): Tähmel.

Remarks: FORSSKÅL intended to describe this species as Sciaena cinerascens, and this is how it was named in the index on p. XII. FABRICIUS in NIEBUHR described the species on p. 53 as Sciaena cinerascens, tähmel. As FABRICIUS in NIEBUHR (1775a) described two alternative names for the species, cinerascens or tähmel, he did not clearly decide how to name the species, so the version on p. 53 is not available (ICZN, Art. 11.5). Both versions, however, are linked together by the species code ‘66’; the name on p. XII is thus accompanied by a diagnosis and description, and is available by indication (ICZN, Art. 12.2.2) as Sciaena cinerascens FORSSKÅL in NIEBUHR, 1775. The species was treated as valid since BONNATERRE (1788: 125, Sciaena cinerascens) and WALBAUM (1792: 312). RÜPELL (1837: 35) treated the second of FORSSKÅL in NIEBUHR’s names for this species, ‘tähmel’, as valid, and named it Pimelepterus tähmel, Pimelepterus tähmel RÜPELL, 1837 is a junior synonym of Sciaena cinerascens FORSSKÅL in NIEBUHR, 1775.

**Chaetodontidae** – Butterflyfishes

**Chaetodon auriga** FORSSKÅL in NIEBUHR, 1775

FORSSKÅL in NIEBUHR (1775a: XIII): “81. [CHÆTODON] c) auriga; radio quinto filari. Mökki. [..., Arabic name]."

FORSSKÅL in NIEBUHR (1775a: 60): “81. CHÆTODON auriga; albídus, oblique fasciatus; radio pinæ dorsalis quinto in filum productum.

Type localities: “Djiddë” (Jeddah, Juddah/Saudi Arabia); “Lo-haha” (Al-Luhayya/Yemen).

Type material: Holotype: ZMUC P.52401 (dry skin) (see KLASEWITZ & NIELSEN 1965: 23, pl. 32; MÖLLER 2006).

Genus name: Chaetodon.

Species name (FORSSKÅL, FABRICIUS in NIEBUHR): auriga.

Arabic names (Latinised, FORSSKÅL, FABRICIUS in NIEBUHR): Mökki, Tabak el kuss, Schausch.

Remarks: This species was described by both FORSSKÅL and FABRICIUS in NIEBUHR as Chaetodon auriga; the name is binominal in both the index and text, is accompanied by a diagnosis and description, and is therefore available as Chaetodon auriga FORSSKÅL in NIEBUHR, 1775. The species is considered as valid since WALBAUM (1792: 422).

**Chaetodon fasciatus** FORSSKÅL in NIEBUHR, 1775

FORSSKÅL in NIEBUHR (1775a: XII): “80. [CHÆTODON] b) fasciatus; flavus. Tabak el kûs.”

FORSSKÅL in NIEBUHR (1775a: 59–60): “80. CHÆTODON fasciatus; flavus; fascia oculari nigra: supra nucham, alba: per latera, ferrugineo-fusca.”

Type locality: “Djiddë” (Jeddah, Juddah/Saudi Arabia).

Type material: Holotype: ZMUC P.52400 (dry skin) (see KLASEWITZ & NIELSEN 1965: 23, pl. 31; MÖLLER 2006).

Genus name: Chaetodon.

Species name (FORSSKÅL, FABRICIUS in NIEBUHR): fasciatus.

Arabic name (Latinised, FORSSKÅL, FABRICIUS in NIEBUHR): Tábak el kûs.

Remarks: This species was described by both FORSSKÅL and FABRICIUS in NIEBUHR as Chaetodon fasciatus; the name is binominal in both the index and text, is accompanied by a diagnosis and description, and is therefore available as Chaetodon fasciatus FORSSKÅL in NIEBUHR, 1775. The species was considered as valid since RÜPELL (1852: 9). Chaetodon tabak WALBAUM [ex FORSSKÅL], 1792 (WALBAUM 1792: 421) and Chaetodon flavus BLOCH & SCHNEIDER [ex FORSSKÅL], 1801 (BLOCH & SCHNEIDER 1801: 225–226) were described as unneeded new names for Chaetodon fasciatus FORSSKÅL in NIEBUHR, 1775; they are junior synonyms.

**Chaetodon mesoleucus** FORSSKÅL in NIEBUHR, 1775

FORSSKÅL in NIEBUHR (1775a: XIII): “83. [CHÆTODON] e) mesoleucus; hinc albus, inde fuscus. Hadijan”.

FORSSKÅL in NIEBUHR (1775a: 61): “83. CHÆTODON mesoleucus; parte anteriore albus, posteriore fuscus, fasciis nigris.”

Type locality: “Moçhcìle” (Al-Mukhã/Yemen).

Genus name: Chaetodon.

Species name (FORSSKÅL, FABRICIUS in NIEBUHR): mesoleucus.

Arabic name (Latinised, FORSSKÅL, FABRICIUS in NIEBUHR): Hadijan.

Remarks: This species was described by both FORSSKÅL and FABRICIUS in NIEBUHR as Chaetodon mesoleucus; the name is binominal in both the index and text, is accompanied by a diagnosis and description, and is therefore available as Chaetodon mesoleucus FORSSKÅL in NIEBUHR, 1775. The species is considered as valid since WALBAUM (1792: 411), Chaetodon mesoleucus sensu FORSSKÅL, spelling error. This is one of the last fish species discovered by P. S. FORSSKÅL in May, June or July 1763. Chaetodon hadjan BLOCH & SCHNEIDER [ex FORSSKÅL], 1801 (BLOCH & SCHNEIDER 1801: 227) was described as an unneeded new name for Chaetodon mesoleucus FORSSKÅL in NIEBUHR, 1775, to distinguish this species from Chaetodon mesoleucus BLOCH, 1787 [BLOCH 1787: 117, pl. 216, fig. 2; currently used name Chaetodontoplus mesoleucus (BLOCH, 1787), Pomacentridae]; Chaetodon hadjan is a junior synonym of Chaetodon mesoleucus FORSSKÅL in NIEBUHR, 1775. The name Chaetodon mesoleucus arabicus WALBAUM [ex FORSSKÅL], 1792 was described as a ‘varietas autalia species’ (variety or other species) by WALBAUM (1792: 411); it is accompanied by a description, is available, but a junior synonym of Chaetodon mesoleucus FORSSKÅL in NIEBUHR, 1775.

**Chaetodon pictus** FORSSKÅL in NIEBUHR, 1775

FORSSKÅL in NIEBUHR (1775a: XIII): “92. [CHÆTODON] o) pictus; albídus, violaceo-lineatus.”

FORSSKÅL in NIEBUHR (1775a: 65): “92. CHÆTODON pictus; albídus, lineis obliquis violaceis, fascia nigra oculorum & caudae.”

Type locality: “Moçhcìle” (Al-Mukhã/Yemen).

Genus name: Chaetodon.
Species name (FORSSKÅL, FABRICIUS in NIEBUHR): pictus.

Remarks: This species was described by both FORSSKÅL and FABRICIUS in NIEBUHR as Chaetodon pictus the name is binomial in both the index and text, is accompanied by a diagnosis and description, and is therefore available as Chaetodon pictus FORSSKÅL in Niebuhr, 1775. The species is considered as valid since WALBAUM (1792: 422–423). This is one of the last fish species discovered by P. S. FORSSKÅL in May, June or July 1763.

*Pomacanthus* — Angelfishes

"Pomacanthus asfur" (Forsskål in Niebuhr, 1775)

**FABRICIUS** [ex FORSSKÅL] in Niebuhr (1775a: XII): “84. [CHÆTODON] I’ ASFUR; Fascia lunari. Asfúr, [...] Arabic name”.

**FABRICIUS** [ex FORSSKÅL] in Niebuhr (1775a: 61): “84. CHÆTODON ASFUR; Nier; Fascia transversa, lunari-cuneata flava.”.

Type locality: “LOHAJE” (Al-Luhayya/Yemen).

Genus name: Chaetodon.

Species name (FORSSKÅL): —; (FABRICIUS in NIEBUHR): asfur.

Arabic names (Latinised, FORSSKÅL, FABRICIUS in NIEBUHR): Takbak el herr, Asfur.

Remarks: In his draft, FORSSKÅL used the Arabic name ‘asfur’ as a substitute for a Latin name possibly to be selected. He did not decide if this was an undescribed species at all. We cannot be certain if the data source for this description was by FORSSKÅL or NIEBUHR or both; the description was compiled by FABRICIUS. FABRICIUS in NIEBUHR described the species as Chaetodon asfur; the name is binominal in both text and index, is accompanied by a diagnosis and description, and therefore would be available as Chaetodon asfur FABRICIUS [ex FORSSKÅL] in Niebuhr, 1775, with the actual name Pomacanthus asfur (FABRICIUS [ex FORSSKÅL] in Niebuhr, 1775), the authorship pending a decision of ICZN. The species was treated as valid since BONNATERRE (1788: 88–89) and WALBAUM (1792: 406).

**Pomacanthus maculosus** (Forsskål in Niebuhr, 1775)

**FORSSKÅL** in Niebuhr (1775a: XIII): “85. [CHÆTODON] g) MACULOSUS; cinereo-caeruleus. Arusa. [...] Arabic name”.

**FABRICIUS** [ex FORSSKÅL] in Niebuhr (1775a: 62): “85. CHÆTODON MACULOSUS, ARUSA; cinereus, maculis transversis caeruleis: operculis anterioribus uni-spinosis.”.

Type locality: “LOHAJE” (Al-Luhayya/Yemen).

Type material: Holotype: ZMUC P.52402 (dry skin) (see KLAUSEWITZ & NIelsen 1965: 23–24, pl. 33; MOLLER 2006).

Genus name: Chaetodon.

Species name (FORSSKÅL): maculosus; (FABRICIUS in NIEBUHR): maculosus, arusa.

Arabic names (Latinised, FORSSKÅL, FABRICIUS in NIEBUHR): Arusa, Aruset el bahr.

Remarks: FORSSKÅL intended to describe this species as Chaetodon maculosus, and this is how it is named in the index on p. XIII. FABRICIUS in NIEBUHR described the species on p. 62 as Chaetodon maculosus, arusa; they did not decide how to name the species, either maculosus or arusa, and therefore the version on p. 62 is not available (ICZN, Art. 11.5). The version on p. XIII is linked by the species code ‘85’ to the diagnosis and description on p. 62; it is therefore available by indication (ICZN, Art. 12.2.2) as Chaetodon maculosus FORSSKÅL in Niebuhr, 1775. The species was considered as valid since WALBAUM (1792: 415–416). It was subsequently re-named Chaetodon arusa BONNATERRE [ex FORSSKÅL], 1788 (BONNATERRE 1788: 89), which is a junior synonym, and later described with an erroneous spelling Holacanthus arusar by LACEPÈDE (1802: 528, 535); the latter name is not an independent species description, but a spelling error. The name Chaetodon arusa was erroneously considered by authors to be a synonym of Pomacanthus asfur (see ESCHMEYER 2007).

**Pomacanthus maculosus** (Forsskål in Niebuhr, 1775)


Type locality: “MOCHE” (Al-Mukhā/Yemen).

Genus name: Chaetodon.

Species/subspecies name (FORSSKÅL): asfur caeruleescens; (FABRICIUS in NIEBUHR): —.

Arabic name (Latinised, FORSSKÅL, FABRICIUS in NIEBUHR): Haadjaya.

Remarks: FABRICIUS used the Latin name ‘caeruleus’ as a variety/subspecies of Chaetodon asfur. Though FABRICIUS in NIEBUHR only mentioned it as variety β of Chaetodon asfur, both versions are linked together by the code ‘84b’, as FORSSKÅL’s version is trinominal as Chaetodon asfur caeruleus, and FABRICIUS’s version is accompanied by a diagnosis, the name is considered to be available by indication (ICZN, Art. 12.2.2) as Chaetodon asfur caeruleus FORSSKÅL in Niebuhr, 1775. Though ESCHMEYER (2007) considers that based on type style in adjacent entries, this name was not proposed as a scientific name, the linking together of index and text versions is justified and recognisable by the species code ‘84b’ (like in other FORSSKÅL species), and thus makes the name available. This is the juvenile of Pomacanthus maculosus (Forsskål in Niebuhr, 1775), which was described in the same paper. GEMLIN (1789: 1267) was the first to consider Chaetodon maculosus FORSSKÅL in Niebuhr, 1775 as a valid species, while he listed Chaetodon caeruleus in the synonymy of Chaetodon asfur. This usage was followed henceforth. I therefore consider the name Chaetodon maculosus FORSSKÅL in Niebuhr, 1775 as having priority over Chaetodon asfur caeruleus FORSSKÅL in Niebuhr, 1775. Pomacanthus maculosus (Forsskål in Niebuhr, 1775) is the valid name of the species. ROPPEL’S (1830: 133) Holacanthus caeruleus is not an independent description, but based on Chaetodon asfur caeruleus FORSSKÅL in Niebuhr, 1775. – Chaetodon asfur amarus BLOCH & SCHNEIDER [ex FORSSKÅL], 1801 (BLOCH & SCHNEIDER 1801: 220) and Holacanthus haddaja CUVIER in CUVIER & Valenciennes, 1831 (CUVIER in CUVIER & Valenciennes 1831: 175) are new names for Chaetodon asfur caeruleus FORSSKÅL in Niebuhr, 1775, and additional junior synonyms of Pomacanthus maculosus (FORSSKÅL in Niebuhr, 1775).

**Terapontidae** — Grunters

"Terapon jarbua" (Forsskål in Niebuhr, 1775)

**FABRICIUS** [ex FORSSKÅL] in Niebuhr (1775a: XII): “57. [SCIÆNA] o) JARBUA; fascis circinatis. Djabuba.”.

**FABRICIUS** [ex FORSSKÅL] in Niebuhr (1775a: 44): “SCIÆNA [...] Djabub. Dentes maxillares unius seriei majores, remoti, a medio decrescentes [...]”.


Type localities: “Djidde” (Jeddah, Jeddah/Saudi Arabia); “Sues” (As-Suways/Egypt).

Type material: Lectotype: ZMUC P.43571 (dry skin), as designated by KLAUSEWITZ & NIelsen (1965: 20; see also
pl. 17–18); paralectotype: ZMUC P.43572 (dry skin) (listed as syntype by Möller 2006). Another Forskål specimen and possible paralectotype (ZMUC P.43573) is based on *Pelates quadrilineatus* (Bloch, 1790).

Genus name: *Sciaena*.

Species name (Forskål): –; (Fabricius in Niebuhr): *jarbua*.

Arabic names (Latinised, Forskål, Fabricius in Niebuhr): Djarbua, Djābūb, Ghabūb.

Remarks: In his draft, Forskål used the Arabic name ‘Djarbua’ as a substitute for a Latin name to be selected, and did not doubt if this was an undescribed species at all. We cannot be certain if the data source for this description was by Forskål or Niebuhr or both; the description was compiled by Fabricius. Fabricius in Niebuhr named *Sciaena jarbua* as a new species; the name is binominal in both the index and text; the name was accompanied by a description, and therefore would be available as *Sciaena jarbua* Fabricius [ex Forskål] in Niebuhr, 1775, with the actual name *Terapon jarbua* (Fabricius [ex Forskål] in Niebuhr, 1775), the authorship pending a decision of ICZN. The species name was treated as valid since Bonnaterre (1788: 123) and Walbaum (1792: 314). *Grammistes annularis* Bloch & Schneider [ex Forskål], 1801 (Bloch & Schneider 1801: 188) is a new name for *Sciaena jarbua* and a junior synonym. “(Sciaena) djubah Forskål, 1775” [would be (Sciaena) djubah Fabricius [ex Forskål], 1775] is another name for this species, out of the version on p. 44 (the name was not mentioned by Eschmeyer 2007); it is binominal, accompanied by a diagnosis, available, and an unused synonym of “Sciaena jarbua Forskål in Niebuhr, 1775”. I hereby act as the first reviser of this case to select *Sciaena jarbua* as the senior synonym.

**Pomacentridae** – Damselfishes

Pomacentridae, indet.  

Type locality: – (Red Sea).

Genus name: *Chætodon*.

Species/subspecies name (Forskål): –; (Fabricius in Niebuhr): abu dafur jähud or jahud. Arabic name (Latinised, Forskål, Fabricius in Niebuhr): Jahūd.

Remarks: Forskål used the Arabic name ‘jahud’ as a substitute for a scientific name possibly to be designated for this variety/subspecies *Chætodon* sp. (with ‘abu dafur’ as another substitute for the species name). Fabricius in Niebuhr (1775a) named Chætodon abu dafur Jähud in the index and *Chætodon abu dafur jähud* in the text. The first version of the subspecies name, jahud, is regarded as a spelling error. As the species name consists of two words, it is not considered binominal; therefore a variety described under a non-binominal name is not considered as available as *Chætodon abu dafur jahud* Fabricius [ex Forskål] in Niebuhr, 1775 (ICZN, Art. 5). The taxon is unidentified within the family Pomacentridae.


Type species: *Chætodon sordidus* Forskål in Niebuhr, 1775 (original designation).

Remarks: In his draft, Forskål used the Arabic name ‘Abu-defduf’ as a substitute for a scientific name possibly to be designated for this new subgenus of *Chætodon*. We cannot be certain if the data source for this description was by Forskål or Niebuhr or both; the description was compiled by Fabricius. Fabricius in Niebuhr (1775a) named *Abudefduf* as a new subgenus under the name *Chætodon*, and provided a diagnosis. Though the diagnosis is not very detailed, the genus-group name would be considered as available by indication through assigning the type species, linked with the description of *Chætodon sordidus* / *Abu defdûf* (ICZN, Art. 12.2.5), as *Abudefduf Fabricius [ex Forskål] in Niebuhr, 1775, the authorship pending a decision of ICZN. The type species was given by Eschmeyer (2007) as *Abudefduf sordidus* (Forskål in Niebuhr, 1775), which is inferred from the usage of the vernacular name of that species in the original description, and is definitely the species which was used by Forskål for the diagnosis.

**Abudefduf bengalensis** (Bloch, 1787)  


Type locality: – (Red Sea).

Genus name: *Chætodon*.

Species/subspecies name (Forskål): –; (Fabricius in Niebuhr): abu dafur hannī. Arabic name (Latinised, Forskål, Fabricius in Niebuhr): hannī. 

Remarks: Forskål used the Arabic name ‘hannī’ as a substitute for a scientific name possibly to be designated for the species *Chætodon* sp. (with ‘abu dafur’ as another substitute for the species name). Fabricius in Niebuhr (1775a) named *Chætodon abu dafur hannī* in both the index and text. As the species name consists of two words, it is not considered binominal; therefore a variety described under a non-binominal name is not considered as available as *Chætodon abu dafur hannī* Fabricius [ex Forskål] in Niebuhr, 1775 (ICZN, Art. 5). The species is identical with *Abudefduf bengalensis* (Bloch, 1787), according to Dor (1984: 179).

**Abudefduf sordidus** (Forskål in Niebuhr, 1775)  
**Fabricius in Niebuhr** (1775a: XIII): “87. [CHÆTODON] j) sordidus; fusco-cineræus. Abu defdûf [..., Arabic name].”


Type locality: “DIDDE” (Jeddah, Juddah/Saudi Arabia).

Type material: Holotype: ZMUC P.56264 (dry skin) (see Klausen-Witz & Nielsen 1965: 24, pl. 34; Möller 2006).

Genus name: *Chætodon*.

Species name (Forskål, Fabricius in Niebuhr): sordidus. Arabic name (Latinised, Forskål, Fabricius in Niebuhr): Abu defdûf.

Remarks: Forskål intended to describe this species as *Chætodon sordidus*, and this is how Fabricius in Niebuhr (1775a) named it in both the index and text. The name is binominal in both versions, accompanied by a diagnosis and description, and is therefore available as *Chætodon sordidus* Forskål in Niebuhr, 1775. The species was treated as valid as *Chætodon sordidus* since Bonnaterre (1788: 90) and Walbaum (1792: 435–436).
Abudefuf vaigensis (Quoy & Gaimard, 1825)

Forsskål in Niebuhr (1775a: XII): “86. [CHÆTODON] h) saxatilis. Gargut. […, Arabic name]”.

Forsskål in Niebuhr (1775a: 62): “86. CHÆTODON saxatilis: albidus; fascis transversis quinque nigris. (Linn.)”.

Locality: – (Red Sea).


Remarks: This is not a new species description, but a redescription of the species Chaetodon saxatilis (non Linnaeus, 1758). The species was misidentified; the record is based on Abudefuf vaigensis (Quoy & Gaimard, 1825).

Dascyllus aruanus (Linnaeus, 1758)


Type locality: “Djjede” (Jeddah, Juddah/Saudi Arabia).

Genus name: Chaetodon.

Species name (Forsskål): –; (Fabricius in Niebuhr): abu dafur.

Arabic name (Latinised, Forsskål, Fabricius in Niebuhr): Abu dafur.

Remarks: Forsskål used the Arabic name ‘abu dafur’ as a substitute for a scientific name possibly to be designated for this Chaetodon sp., which he possibly considered to be identical with Chaetodon aruanus Linnaeus, 1758. Fabricius in Niebuhr (1775a) named Chaetodon abu dafur in the text, but also stated that ‘Abu dafur’ is the Arabic name. As the species name consists of two words, it is not considered binomial (ICZN, Art. 5), not meant as a species name (indication that it is the Arabic name), and therefore not considered as available as Chaetodon abu dafur Fabricius [ex Forsskål] in Niebuhr, 1775. Judging from the colour description and habitat, the species is identical with Dascyllus aruanus (Linnaeus, 1758), as already stated by Rüppell (1829: 39, Pomacentrus aruanus) and Günther (1862: 12), erroneously listed as Chaetodon abudafur by Eschmeyer (2007).

Labridae – Wrasses

Cheilinus abudjubbe Rüppell [ex Forsskål], 1835

Forsskål in Niebuhr (1775a: XI): “34. [LABRUS i] LUNULATUS b) lineis radiantis circa oculos.”.

Forsskål in Niebuhr (1775a: 37): “34. [LABRUS LUNULATUS] b) Varietas sine lunula fulva: lineis circa oculos radiantis, rubris, longis.”.

Locality: “Djide” (Jeddah, Juddah/Saudi Arabia).

Material: ZMUC P.5847 (holotype of Cheilinus abudjubbe Rüppell [ex Forsskål], 1835; paratype of Labrus lunulatus Forsskål in Niebuhr, 1775).

Genus name: Labrus.

Species/subspecies name (Forsskål, Fabricius in Niebuhr): lunulatus (var. b).

Arabic names (Latinised, Forsskål, Fabricius in Niebuhr): Abu djubbe, Senuat abdjubbe.

Remarks: This variety was described by both Forsskål and Fabricius in Niebuhr as Labrus lunulatus var. b or var. b; neither of the two gives a variety name. The species was named (Scarus) abu dafur in the teeth description on p. 44; however, the species name is not binominal as consisting of two words, and therefore not available as Scarus abu dafur Fabricius [ex Forsskål], 1775. Forsskål’s description is the basis for Rüppell’s (1835: 18) description of Cheilinus abudjubbe Rüppell [ex Forsskål], 1835, which is a valid species. The common name ‘abu dafur’ is obviously attributed to this variety, though Fabricius in Niebuhr (1775a) apparently confused the two varieties and listed ‘abu dafur’ in the index for Labrus lunulatus, but in the text for Labrus lunulatus var. b. It is here assumed that the text version is correct.

Cheilinus lunulatus (Forsskål in Niebuhr, 1775)

Forsskål in Niebuhr (1775a: XI): “34. [LABRUS] i) LUNULATUS; squamis fasciatis. Abu dafur vel Dik. […, Arabic name].

Forsskål in Niebuhr (1775a: 37): “34. LABRUS LUNULATUS; fusco-virescens, fasciis obscurioribus, squamis singulis fasciis ferruginea, capite pectoreque rubro-guttato, lunula operculi pone fulva.”.

Type locality: – (Red Sea).

Type material: Lectotype: ZMUC P.4856 (dry skin) (listed as holotype by Eschmeyer 2007), designated by Klausewitz & Nielsen 1965: 17; see also pl. 7), see also Möller (2006).

Genus name: Labrus.

Species name (Forsskål, Fabricius in Niebuhr): lunulatus.

Arabic names (Latinised, Fabricius in Niebuhr): Abu dafur, Dik.

Remarks: This species was described by both Forsskål and Fabricius in Niebuhr as Labrus lunulatus; the name is binominal in both the index and text, is accompanied by a diagnosis and description, and is therefore available as Labrus lunulatus Forsskål in Niebuhr, 1775. The species was considered as valid since Walbaum (1792: 242–243, 246; double entry). Fabricius in Niebuhr (1775a) confused the two varieties when assigning the common name (see above, remarks under Cheilinus abudjubbe).

Cheilinus inermis (Forsskål in Niebuhr, 1775)


Forsskål in Niebuhr (1775a: 34): “27. LABRUS INERMIS; radiis pinnarum spinosis nullis; corpore lineari, oblongo, virente; vitta laterali nigro-guttata.”.

Type locality: “Mochue” (Al-Mukhā/Yemen).

Type material: Lectotype: ZMUC P.5739, as designated by Klausewitz & Nielsen (1965: 16; see also pl. 6); paralecotype: ZMUC P.5740 (dry skin) (Möller 2006).

Genus name: Labrus.

Species name (Forsskål, Fabricius in Niebuhr): inermis.

Arabic name (Latinised, Forsskål): Ghassek; (Fabricius in Niebuhr): Gbssek.

Remarks: This species was described by both Forsskål and Fabricius in Niebuhr as Labrus inermis; the name is binominal both in the index and in the text, and accompanied by a diagnosis and description; it is therefore available as Labrus inermis Forsskål in Niebuhr, 1775. The species was considered as valid since Walbaum (1792: 262). It was subsequently re-named Cheilio forskali Valenciennes in Cuvier & Valenciennes, 1839 (Valenciennes in Cuvier & Valenciennes 1839: 349), which is a junior synonym. This is one of the last fish species discovered by P. S. Forsskål in May, June or July 1763. Labrus hassek Lacepède [ex Forsskål], 1801 (Lacepède 1801: 444, 513, 515–516) is an unneeded new name for Labrus inermis Forsskål in Niebuhr, 1775; it is available, but a junior synonym.

Coris julis (Linnaeus, 1758)

Forsskål in Niebuhr (1775a: XI): “21. SPARUS a) niloticus; recte Labrus julis.”.
**Coris julis** (Linnaeus 1758)

*Fabricius* [ex *Forsskål*] in *Niebuhr* (1775a: XI): “26. LABRUS JULIS — PERDICA; cauda aequali; vertice glabro; dorso recto; vittis utrinque dentatis, albido-flaviventibus.”

Type locality: — (Turkey).

Genus name: *Labrus*.

Species name (*Forsskål*): — (fabricius in *Niebuhr*): *perdica*.

Remarks: In his draft, *Forsskål* used the Greek name Πέρδικα as a substitute for a Latin name possibly to be selected. He did not decide if this was an undescribed species at all. We cannot be certain if the data source for this description was by *Forsskål* or *Niebuhr* or both; the description was compiled by *Fabricius*. *Fabricius* in *Niebuhr* (1775a) described the new species as *Labrus perdica*; the new name is binomial both in the index and in the text, and accompanied by a diagnosis and description, and would be available (based on the description) as *Labrus perdica* *Fabricius* [ex *Forsskål*] in *Niebuhr*, 1775, the authorship pending a decision of ICZN. The species was considered as valid by *Walbaum* (1792: 248). This is a composite species, based in part on *Coris julis* (Linnaeus 1758), and on *Labrus bergylta* *Ascanius*, 1767 (see below).

**Coris julis** (Linnaeus, 1758)


Type locality: — (Marseille/France; not known from the Nile).

Remarks: *Sparus niloticus* *Forsskål* [ex *Hasselt*] in *Niebuhr*, 1775 was not mentioned by *Eschmeyer* (2007); the name was only described in the *Hasselt* (1762: 387) version (listed by *Eschmeyer* 2007 as not available, as published in a rejected work, see *Anonymous* (1914, 1956), *Melville & Smith* (1987: 330). *Forsskål*’s version was published in synonymy of *Labrus julis* and is therefore not available. The species was not identified in the sense of *Hasselt*, as *Hasselt*’s fish was a freshwater species from the Nile. The name was made available under the two names *Labrus niloticus* *Walbaum* [ex *Forsskål*], 1792 (*Walbaum* 1792: 258–259) and *Sparus niloticus* *Walbaum* [ex *Forsskål* & *Hasselt*], 1792 (*Walbaum* 1792: 300); they are junior synonyms of *Coris julis* (Linnaeus, 1758).

**Labrus viridis** (Linnaeus, 1758)

*Forsskål* [ex *Anonymous*] in *Niebuhr* (1775a: XIX): “LABRUS TURDUS vulg.”.


Locality: “Melita” (La Valletta/Malta).

Remarks: Two varieties of the species *Labrus turdus* *Linnaeus*, 1758 were recorded from Malta by *Forsskål* [ex *Anonymous*] in *Niebuhr* (1775a), the ordinary variety of *Labrus turdus*, and a variety named *Labrus turdus virid(is) minor*. The latter, if considered as a variety name, would not be binominal, and as neither was accompanied by a diagnosis, it would not be available. Both names are synonyms of *Labrus viridis* *Linnaeus*, 1758, which is considered as a valid species.

**Pteragogus flagellifer** (Valenciennes in *Cuvier & Valenciennes*, 1839)


Type locality: “Mochile” (Al-Mukhā/Yemen).

Genus name: *Labrus*.

Species name (*Forsskål*, *Fabricius* in *Niebuhr*): *ramentosus*.

Remarks: This species was described by both *Forsskål* and *Fabricius* in *Niebuhr* as *Labrus ramentosus*; it is binominal in both the index and text, and accompanied by a diagnosis and description; it is therefore available as *Labrus ramentosus* *Forsskål* in *Niebuhr*, 1775, and was treated as such by *Bonnaterre* (1788: 108), *Gmelin* (1789: 1293), and *Bloch & Schneider* (1801: 258). Unfortunately, this is a rarely used senior synonym of *Pteragogus flagellifer* (*Valenciennes in Cuvier & Valenciennes*, 1839). In order to preserve stability of nomenclature (preamble and Art. 23.2 of ICZN), an application to the International Commission on Zoological Nomenclature is needed to suppress the name *Labrus ramentosus*. The name was subsequently misspelled *Lutjanus ramentaceus* by *Lacepède* (1802: 183, 218), which is not an independent species description, but a spelling error explicitly based on *Labrus ramentosus*.

**Symphodus ocellatus** (Linnaeus, 1758)


*Forsskål* in *Niebuhr* (1775a: 37): “33. LABRUS OCELLATUS; virescens; ocello coccineo pone utrumque oculum.”.

Type locality: “Smirnæ” (Izmir/Turkey).

Genus name: *Labrus*.

Species name (*Forsskål*): *ocellatus (ocellaris)*; (fabricius in *Niebuhr*): *ocellatus*.

Remarks: This is not an independent new species description, but an incorrect subsequent spelling (ICZN, Art. 33.3) of *Labrus ocellaris* *Linnaeus*, 1758; the emendation was done either by both *Forsskål* and *Fabricius*, or just by *Fabricius* in *Niebuhr*. The argument that *Forsskål* or *Fabricius* were not aware of Linnaean names is not valid (see Introduction). The spelling with the prevailing usage (ICZN, Art. 33.2.3.1), however, is *Symphodus ocellatus*. The obligatory name is therefore *Symphodus ocellatus* (*Linnaeus*, 1758), with the authorship changed to *Linnaeus* (1758), and the Linnaean spelling changed to *ocellatus*. *Forsskål*’s spelling was treated as valid as *Labrus ocellatus* *Bonnaterre* [ex *Forsskål*], 1788, and by subsequent authors like *Walbaum* (1792: 249–250) and *Bloch & Schneider* (1801: 259) who erroneously treated it as separate from *Labrus ocellaris*. Today, the
species is common in the Aegean Sea near Izmir (Fricke et al. 2007: 94).

**Symphodus rostratus** (Bloch, 1791)
*Fabricius* [ex *Forsskål*] in *Niebuhr* (1775a: 36): “30. LABRUS scina; cauda integra; corpore virescente, nebulis albis flavis; fovea inter oculos impressa; & ante foveam suolim impresso.”
Type locality: “CONSTANTINOPOLI” (Istanbul/Turkey).
Genus name: *Labrus*.
Species name (Fricke, *Fabricius* in *Niebuhr*): *scina*.
Remarks: In his draft, *Fabricius* used ‘scina’ as a substitute for a species name possibly to be designated. He did not decide if this was an undescribed species at all. We cannot be certain if the data source for this description was by *Forsskål* or *Niebuhr* or both; the description was compiled by *Fabricius*.

**Symphodus tinca** (Linnaeus, 1758)
*Fabricius* [ex *Forsskål*] in *Niebuhr* (1775a: 36): “31. LABRUS lapina; cauda integra; pinnis pectoralis flavis; Ventralibus caruleis; religius violaceis, maculis caruleis.”
Type locality: “CONSTANTINOPOLI” (Istanbul/Turkey).
Genus name: *Labrus*.
Species name (Fricke, *Fabricius* in *Niebuhr*): *lapina*.
Remarks: In his draft, *Fabricius* used the Greek name Αατίνα as a substitute for a Latin name possibly to be selected. He did not decide if this was an undescribed species at all. We cannot be certain if the data source for this description was by *Forsskål* or *Niebuhr* or both; the description was compiled by *Fabricius*.

**Symphodus tinca** (Linnaeus, 1758)
Locality: (Alexandria, Al-Islandariyah/Egypt, Mediterranean Sea).
Remarks: This is a spelling error for the Linnaean species *Labrus tinca*.
valid as *Iniiistius pentadactylus* (Linnaeus, 1758); *Forsskål’s [ex Anonymus] Maltese record, however, was based on Ḩy-
richtys novacula* (Linnaeus, 1758).

**Scariidae – Parrotfishes**

*Chlorurus sordidus* (Forsskål in Niebuhr, 1775)


*Forsskål in Niebuhr* (1775a: 30): “18. SCARUS SORDIDUS, maxill-
*lis rubentibus, corpore fusco ferrugineo, pinnis obscurori-
bus, cauda surgeunte pinnæ aequali.”

*Forsskål locality*: – (Red Sea).

Type locality: Off Hurghada, Egypt, Red Sea, 27°17'23"N, 33°48'52"E, 0–20 ft (as defined by neotype).

Type material: Neotype: USNM 202297, as selected by SCHULTZ (1969: 20).

Genus name: *Scarus*.

Species name (*Forsskål*, *Fabricius in Niebuhr*): *sordidus*.

Arabic name (Latinised, Forsskål, Fabricius in Niebuhr): *Harîd*.

Remarks: This species was described by both *Forsskål* and *Fabricius in Niebuhr* as *Scarus sordidus*. The name is binominal both in the index and in the text, and accompanied by a diag-

nosis and description; it is therefore available, and a valid species, as *Scarus sordidus* Forsskål in Niebuhr, 1775.

“*Hipposcarus harid* (Forsskål in Niebuhr, 1775)”


*Fabricius* [ex *Forsskål*] in Niebuhr (1775a: 30): “17. SCARUS HARI-
d: cauda bifurca, media basi squamis septa.”


Type locality: – (Red Sea).

Type material: Holotype: ZMUC P.5952 (see KLAUSEWITZ & NIELSEN 1965: 14, pl. 3; MOLLER 2006).

Genus name: *Scarus*.

Species name (*Forsskål*): – (Fabricius in Niebuhr): *harid*.

Arabic name (Latinised, Forsskål, Fabricius in Niebuhr): *Harid*.

Remarks: This species was described by *Fabricius [ex *Forsskål*] in Niebuhr as *Scarus harid*, *Forsskål*, however, did not in-
clude a scientific species name in his draft, but used the Ara-
bic name ‘*harid*’ as a substitute for a Latin species

name. The use of ‘*harid*’ as the species name was clearly decided and autho-
red by *Fabricius [ex *Forsskål*]. The name is bi-
nominal both in the index and in the text, and accompanied by a diag-

nosis and description; it would therefore be availa-

ble as *Scarus harid* Fabricius [ex *Forsskål*] in Niebuhr, 1775, a valid species with the actual name *Hipposcarus harid* (Fabricius [ex *Forsskål*] in Niebuhr, 1775), the authorship pending a decision of ICZN.

*Scarus* Forsskål in Niebuhr, 1775

*Forsskål in Niebuhr* (1775a: X): “SCARUS. SCARUS: novum gen-
us *Σκάρος*. Character genericus: Dentium loco maxillæ
ipsæ eminentes, margine dentato-crenatae, osse-
ae.”

*Forsskål in Niebuhr* (1775a: 25): “SCARUS novum genus anti-
quo nomine *Σκάρος*. Character genericus: Dentium loco
maxillæ ipsæ eminentes, margine dentato-crenatae, osse-
ae.”

Type species: *Scarus psitacus* Forsskål in Niebuhr, 1775 (subse-

quently designated by JORDAN & GILBERT 1883: 93).

Remarks: This is marked to be a new genus description, and

accompanied by a diagnosis. The diagnosis, however, is not

characteristic for one of the modern genera in Scaridae, but

only for the family Scaridae itself. Unfortunately, the spe-

cies listed under the generic name indicate that the genus

was also of a composite origin, including species now clas-

sified in various families. The first species described under

the new genus name is *Siganus* *rivulatus*, named in the

index on p. X *Scarus* *rivulatus* (new genus *Siganus*), i.e. *Siganus* *rivulatus* (see below). The next following spe-

cies would be *Scarus stellatus*, which is again a siganid fish

(*Siganus stellatus*, see below). The third and fourth species

are *Scarus gallopro* and *S. purpureus* which are based on spe-

cies of *Thalassoma*, i.e. labrid fishes. The fifth species,

*Scarus ghobban*, is the first to be a scarid fish in actual clas-

sification. However, *Scarus psitacus* was subsequently dis-

ignated as the type species by JORDAN & GILBERT (1883: 93).

*Forsskål in Niebuhr*’s (1775) new name and diagnosis, how-

ever, refers to the ancient Greek fish *Σκάρος*, which is *Spa-

risoma cretense*. Therefore, *Sparisoma cretense* would be

the originally intended type species, i.e. the ‘*Labrus* creri-

cus’ listed on p. XIX. Therefore, *Scarus Forsskål in Nie-

buhr, 1775* would be the senior synonym of *Sparisoma* *Swainson*, 1839 (SWAINSON 1839: 172, 227). An opinion of

the International Commission on Zoological Nomenclature

will be necessary to stabilise the present usage of the

name.

*Scarus ferrugineus* Forsskål in Niebuhr, 1775

*Forsskål in Niebuhr* (1775a: X): “15. [SCARUS] g) ferrugineus; ore viridi. *Abu meles*.”


Type locality: – (Red Sea).

Type material: Neotype: BPBM 18158, as selected by RANDALL & ORMOND (1978: 245).

Genus name: *Scarus*.

Species name (*Forsskål*, *Fabricius in Niebuhr*): *ferrugineus*.

Arabic name (Latinised, Forsskål, Fabricius in Niebuhr): *Abu meles*.

Remarks: This species was described by both *Forsskål* and

*Fabricius as Scarus ferrugineus*. The name is binominal both in the index and in the text, and accompanied by a diag-

nosis and description; it is therefore available, and a valid species, as *Scarus ferrugineus* Forsskål in Niebuhr, 1775.

“*Scarus ghobban* Forsskål in Niebuhr, 1775”


ghobban; cauda aequali, maxillæ albidis; lituræ capitis & pinnarum margine exteriori viridi-caruleis.”

Type locality: “*Dídde*” (Jeddah, Juddah/Saudi Arabia).

Genus name: *Scarus*.

Species name (*Forsskål*): – (lituratus); *Fabricius in Niebuhr*: *ghobban*.

Arabic name (Latinised, Forsskål, Fabricius in Niebuhr): *Ghob-
ban*.

Remarks: This species was described by *Fabricius [ex *Forsskål*] in Niebuhr as *Scarus ghobban*; in his draft, however, *Forss-

kål* did not include a scientific species name, but used the Arabic name ‘*ghobban*’ as a substitute for a Latin species
name possibly to define, and possibly planned to use ‘lituratus’ as mentioned in the index, where ‘lituratus’ stands in the position where usually FORSSKÅL’s species names are found. He did not decide if this was an undescribed species at all. We cannot be certain if the data source for this description was by FORSSKÅL or NIEBUHR or both; the description was compiled by FABRICIUS. The use of ‘ghobban’ as the species name was clearly decided and authored by FABRICIUS (ex FORSSKÅL). The name is binominal both in the index and in the text, and accompanied by a diagnosis and description; it would therefore be available as Scarus ghobban FABRICIUS (ex FORSSKÅL) in NIEBUHR, 1775, the authorship pending a decision of ICZN. The species was treated as valid by BONNATERRE (1788: 95) and later authors. The species name was subsequently misspelled as ghoban by WALBAUM (1792: 687, Scarus ghoban) and KLUNZINGER (1871: 563–564, Pseudoscarus ghoban).

**Scarus niger** FORSSKÅL in NIEBUHR, 1775


Type locality: – (Red Sea).

Type material: Holotype: ZMUC P.5951 (see KLUNZING & NIelsen 1965: 14, pl. 3; MÖLLER 2006).

Genus name: *Scarus*.

Species name (FORSSKÅL, FABRICIUS in NIEBUHR): *niger*.

Arabic name (Latinised, FORSSKÅL, FABRICIUS in NIEBUHR): Chagri.

Remarks: This species was described by both FORSSKÅL and FABRICIUS in NIEBUHR as *Scarus niger*. The name is binominal both in the index and in the text, and accompanied by a diagnosis and description; it is therefore available, and a valid species, as *Scarus niger* FORSSKÅL in NIEBUHR, 1775. *Scarus chadri* LACEPEDE [ex FORSSKÅL], 1802 (LACEPEDE 1802: 2, 12) is an unneeded new name for *Scarus ghoban* FABRICIUS (ex ANONYMOUS) in NIEBUHR, 1775; it is available, but a junior synonym.

**Scarus psittacus** FORSSKÅL in NIEBUHR, 1775

FORSSKÅL in NIEBUHR (1775a: X): “16. [SCARUS] h. PSITTACUS; viridi-flavus. Durras el barr. […] Arabic name”.


FORSSKÅL locality: “DIDDE” (Jeddah, Juddah/Saudi Arabia).

Type locality: Sharm-el-Sheijkh, Sinai, Egypt, Red Sea (as defined by neotype).

Type material: Neotype: USNM 201805, as selected by SCHULTZ (1969: 7); RANDALL & ORMOND (1978) disagreed and selected a new BPBM neotype, which is not valid, unless the International Commission on Zoological Nomenclature suppresses the old neotype.

Genus name: *Scarus*.

Species name (FORSSKÅL, FABRICIUS in NIEBUHR): *psittacus*.

Arabic name (Latinised, FORSSKÅL): Durrat el barr; (FABRICIUS in NIEBUHR): Durras el barr.

Remarks: This species was described by both FORSSKÅL and FABRICIUS in NIEBUHR as *Scarus psittacus*. The name is binominal both in the index and in the text, and accompanied by a diagnosis and description; it is therefore available, and a valid species, as *Scarus psittacus* FORSSKÅL in NIEBUHR, 1775. This species was re-named *Pseudoscarus forsskalli* KLUNZINGER [ex FORSSKÅL], 1871 (KLUNZINGER 1871: 566–567).

**Sparisoma cretense** (Linnaeus, 1758)


Locality: “Melita” (La Valletta/Malta).

Remarks: It is unclear if ‘cretic.’ and ‘variis’ are meant as two subspecies or varieties of the species *Labrus scarus* Linnaeus, 1758, or not. If so, they would be names only (nomina nuda), as *Labrus scarus creticus* FORSSKÅL [ex ANONYMOUS] in NIEBUHR, 1775 and *Labrus scarus varius* FORSSKÅL [ex ANONYMOUS] in NIEBUHR, 1775; none of them would be available as neither was accompanied by a diagnosis nor an indication. Both would be synonyms of the species *Sparisoma cretense* (Linnaeus, 1758).

**Ammodontidae** – Sand lances

**Gymnammodytes cicerelus** (Rafinesque-Schmaltz, 1810)

FORSSKÅL [ex ANONYMOUS] in NIEBUHR (1775a: XIX): “AMMODYTES tobianus.”

Locality: “Melita” (La Valletta/Malta).

Remarks: This record of the species *Ammodontes tobianus* (non Linnaeus, 1758) is obviously based on the only Mediterranean species of ammodontid fish, *Gymnammodytes cicerelus*.

**Trachinidae** – Weeverfishes

**Trachinus sp.**


Localities: – (Istanbul/Turkey and/or İzmir/Turkey).

Remarks: Here, only the genus name is given without diagnosis. The only information is that the fish is stinging severely, but this is true for any species of the genus. The record cannot be assigned to species level; it could have been based on either Mediterranean species of trachinid fish (see above).

**Trachinus sp.**

FORSSKÅL [ex ANONYMOUS] in NIEBUHR (1775a: XVIII): “[TRACHINUS draco].”

Locality: “Melita” (La Valletta/Malta). Local name: “Il Majuro ta roca”.

Remarks: Again, this record is based on a name only, and cannot be assigned to species level; it could have been based on either Mediterranean species of trachinid fish (see above).

**Uranoscopidae** – Stargazers

**Uranoscopus scaber** Linnaeus 1758


Localities: “Constantinop.” (Istanbul/Turkey); “Smirna” (İzmir/Turkey).

Remarks: This is undoubtedly the Linnaean species *Uranoscopus scaber*. The modern Turkish name is ‘Kurbağa balığı’ (FRICKE et al. 2007: 96).
**Blenniidae** – Comboth blennies

*Coryphoblennius galerita* (Linnaeus, 1758)  
**Remarks:** This is a name only, listed as *Blennius galerita* in Niebuhr, 1775. This is not an independent species description, but a spelling error for *Blennius galerita* Linnaeus, 1758, and thus a double entry of that species.

**Salaria** Bath [ex Forskål], 1977  
**Locality:** “Melita” (La Valletta/Malta).

*Salaria pavo* (Risso, 1810)  
**Locality:** “Melita” (La Valletta/Malta).

**Callionymidae** – Dragonets

*Callionymus pusillus* Delaroche, 1809  
**Locality:** “Melita” (La Valletta/Malta).

**Remarks:** This is not an independent species description, but the record is based on *Callionymus dracunculus* Linnaeus, 1758; it was placed either deliberately or erroneously in the genus *Cottus*. The name *Callionymus dracunculus* was suppressed for the purpose of priority but not homonymy, and the name was placed on the Official Index (Opinion 1658: Anonymus 1991). The record was most probably based on *Callionymus*...
pusillus Delaroche, 1809, the only callionymid fish species that may be frequently found on shallow sand bottoms in Malta.

**Gobiidae – Gobies**

Gobiidae, indet.

**Forsskål in Niebuhr** (1775a: XV): “5. GOBIUS a) anguillaris; minutimus.”

Forsskål in Niebuhr (1775a: X): “5. GOBIUS. a) ANGUILLARIS; minutimus.”

Gobiidae, indet.

**Forsskål in Niebuhr** (1775a: XVIII): “[SCORPENA] scorpius.”

Forsskål in Niebuhr (1775a: X): “5. GOBIUS b) anguillaris; minutimus.”

Forsskål in Niebuhr (1775a: 23–24): “5. GOBIUS. ANGUILLARIS; CUTE MOLLISSIMA, SQUAMIS ADNATIS; PINNIS DORSI PRIMIS, RADIX 5; POSTERIORIBUS EMUNITUS, FILIFORMIBUS.”

Locality: “Melita” (La Valletta/Malta). Local Maltese name: “Il Mazzun”.

Remarks: This is not an independent species description, but again based on *Cottus scorpius* (non Linnaeus, 1758). This is an erroneous double entry of one species under two different genus names, and accompanied by two different local names (see above). According to the Maltese name, this was a misidentification as the actual vernacular Maltese name “Mazzun” (Anonymous 2007b) refers to various species of larger gobies (Fröck et al. 2007).

*Cryptocentrus arabicus* (Gmelin [ex Forsskål], 1789)

Forsskål in Niebuhr (1775a: X): “5. GOBIUS. a) anguillaris; minutimus.”

Forsskål in Niebuhr (1775a: 23–24): “5. GOBIUS. ANGUILLARIS; CUTE MOLLISSIMA, SQUAMIS ADNATIS; PINNIS DORSI PRIMIS, RADIX 5; POSTERIORIBUS EMUNITUS, FILIFORMIBUS.”

Locality: “Djidda” (Jeddah, Jeddah/Saudi Arabia).

Remarks: This is a misidentification of the species *Gobius angui- laris* (non Linnaeus, 1758), not an independent species description. The species was subsequently described as *Gobius arabicus* Gmelin [ex Forsskål], 1789 (Gmelin 1789: 1198), a species currently accepted as valid which is now named *Cryptocentrus arabicus* Gmelin [ex Forsskål], 1789. This species, however, was previously available as *Gobius djiddensis* Bonnaterre [ex Forsskål], 1788 (Bonnaterre 1788: 64). As the latter is an unused name, it is here rejected; a petition to the International Commission on Zoological Nomenclature will be needed to suppress it and conserve *Gobius arabicus* Gmelin [ex Forsskål], 1789.

**Gobius niger** Linnaeus, 1758


Locality: “Melita” (La Valletta/Malta).

**Gobius paganellus** Linnaeus 1758


Locality: – (Turkey); “Melita” (La Valletta/Malta).

Remarks: The Turkish record is based on the Linnaean species *Gobius paganellus*, which is regularly found in shallow water, both around Istanbul and İzmir. The Maltese record is a name only, and the identification cannot be verified.

*Yongeichthys nebulosus* (Forsskål in Niebuhr, 1775)

Forsskål in Niebuhr (1775a: X): “6. [GOBIUS] b) nebulosus; pinnae d. radio prolongato. Hout ed djinn. […, Arabic name].”

Forsskål in Niebuhr (1775a: 24): “6. GObiUS nebulosUs: sqUaMiS ASPeRiS, FuSCo-neBuloSiS: pinnae dorsalis prIme raDio secundo filo longo nigro.”

Type locality: “Djidda” (Jeddah, Jeddah/Saudi Arabia).

Genus name: *Gobius*.

Species name (*Forsskål, Fabricius in Niebuhr*): *nebulosus*.

Arabic name (Latinised, Forsskål, Fabricius in Niebuhr): Hout ed djinn.

Remarks: This species was described by both Forsskål and Fabricius in Niebuhr as *Gobius nebulosus*; the description was accompanied by a diagnosis and description; the name is available as *Gobius nebulosus* Forsskål in Niebuhr, 1775. It was treated as valid since Bonnaterre (1788: 64–65) and Walbaum (1792: 199–200).

**Ephippidae – Spadefishes**

*Platix orbicularis* (Forsskål in Niebuhr, 1775)

Forsskål in Niebuhr (1775a: XII): “79. CHÆTODON a) ORBICULARIS; dorso ascendente. Kanaf.”

Forsskål in Niebuhr (1775a: 59): “79. CHÆTODON ORBICULARIS; cinereo-fuscus; subrotundus; spinis dorsalis nullis. Arab. major Kanaf; parvus Dakar.”

Type locality: “Djidda” (Jeddah, Jeddah/Saudi Arabia).

Type material: Holotype: ZMUC P. 5168 (dry skin) (see Klausen- witz & Nielsen 1965: 23, pl. 30; Möller 2006).

Genus name: *Chaetodon*.

Species name (*Forsskål, Fabricius in Niebuhr*): *orbicularis*.

Arabic names (Latinised, Forsskål, Fabricius in Niebuhr): Kanaf (larger), Dakar (small).

Remarks: This species was described by both Forsskål and Fabricius in Niebuhr as *Chaetodon orbicularis*; the name is binominal in both text and index, is accompanied by a diagnosis and description, and therefore available as *Chaetodon orbicularis* Forsskål in Niebuhr, 1775. The species is valid, with the currently used name *Platix orbicularis* (Forsskål in Niebuhr, 1775).

“Platix teira” (Forsskål in Niebuhr, 1775)

Fabricius [ex Forsskål] in Niebuhr (1775a: XIXII): “82. [CHAETODON] d) teira; pinna dorsi corpore duplo longiore. Teyra. […] Arabic name].”


Forsskål [ex Baurenfeind] in Niebuhr (1776: 7): “CHÆTODON Teira. Pag. 60, n. 82. (TAB. XXII).”

Type locality: “Lohaj” (Al-Luwayh/Yemen).

Genus name: *Chaetodon*.

Species name (*Forsskål*): -; (Fabricius in Niebuhr): teira.

Arabic name (Latinised, Forsskål, Fabricius in Niebuhr): Diakar (large), Teyra (small).

Remarks: In his draft, Forsskål used the Arabic name ‘teira’ as
a substitute for a Latin name possibly to be selected. He did not decide if this was an undescribed species at all. We cannot be certain if the data source for this description was by Forsskål or Niebuhr or both; the description was compiled by Fabricius. Fabricius in Niebuhr described the species as Chetodon teira; the name is binomial in both text and index, is accompanied by a diagnosis and description, and therefore would be available as Chetodon teira Fabricius [ex Forsskål] in Niebuhr, 1775, the authorship pending a decision of ICZN. The species was considered as valid since Walbaum (1792: 417–418), Forskål [ex Baurenfeld] in Niebuhr (1776: pl. 22) illustrated a young specimen of this species. Chetodon daakar Bonnaterre [ex Forskål], 1788 (Bonnaterre 1788: 81, pl. 95, fig. 389) was described as an unneeded replacement name of “Chetodon teira Forskål in Niebuhr, 1775”; it is a junior synonym.

Siganidae – Rabbitfishes

Siganus Forsskål in Niebuhr, 1775


Type species: Siganus rivulatus Forskål & Forsskål in Niebuhr, 1775.

Remarks: The species named by Forsskål in his draft Scarus siganus was renamed by Fabricius in Niebuhr as a new genus, Siganus, attributed to the first species listed under the new genus name Scarus. The new genus was not accompanied by a diagnosis, and is only available by the type species designation by Fabricius in Niebuhr. Though the name Siganus was published in synonymy of Scarus, it would be considered to be available as Siganus Fabricius [ex Forsskål] in Niebuhr, 1775, according to ICZN, Art. 15.1 and 11.9.3.4, the authorship pending a decision of ICZN.

“Siganus rivulatus Forskål in Niebuhr, 1775”


Type localities: “Lohajie” (Al-Luwayyah/Yemen); “Basra” (Al-Basrah/Iraq, 30°30’N 47°47’E).

Type material: Lectotype: ZMUC P.6689 (dry skin) (either from Al-Luwayyah, collected by Forskål but returned by Niebuhr, or collected by Niebuhr at Al-Basrah), as designated by Klausewitz & Nielsen (1965: 13–14, pl. 2); paralectotype: ZMUC P.6690 (dry skin) (Møller 2006).

Genus name: Siganus (or Scarus?).

Species name (Forskål): Siganus; (Fabricius in Niebuhr): rivulatus.

Arabic names (Latinised, Forskål, Fabricius in Niebuhr): Djezavi, Sidjan, Sgian.

Remarks: This species was obviously intended to be named Scarus rivulatus by Forskål in his draft, as a member of the genus Siganus. It was Fabricius in Niebuhr who apparently thought that this may represent another new genus, and added the name Siganus new genus, which was named for the Arabic name Sidjan or Sigian. It is not clear whether the remark on p. 26 was added by Fabricius in Niebuhr or Forskål, neither whether the specimen ZMUC P.6689 was collected by Niebuhr or Forskål, though it was evidently sent to Copenhagen by Niebuhr, not Forskål. Niebuhr at least added the remark on the Al-Basrah locality (Forskål never visited Al-Basrah/Iraq), which was accompanied by part of the description. It is therefore evident that the authorship of the name must be attributed (at least in part) to Niebuhr. The name was used in two different versions, Scarus rivulatus (n. gen. Siganus) on p. X, and Scarus siganus; rivulatus on p. 25. The second version is accompanied by a diagnosis and description, while the first version is a mere listing. Though the second version is not binominal and therefore not available, giving two alternative names for the species (ICZN, Art. 5), both versions are considered to be linked together by the species code ‘9’, and the name is available by indication (ICZN, Art. 12.2.2) through the first version, (Scarus) Siganus rivulatus. As the name was intended to belong to the new genus Siganus, though listed under Scarus, it would be quoted without parentheses as Siganus rivulatus Forskål & Niebuhr in Niebuhr, 1775, the authorship pending a decision of ICZN. This species was later named Scarus siganus Bonnaterre [ex Forskål], 1788, and Amphacanthus siganus Klunzinger [ex Forskål], 1871 (Klunzinger 1871: 502), which are junior synonyms. The Amphacanthus siganus of RöpPELL (1829: 44, pl. 11, fig. 1) is not an independent species description, but based on the Scarus siganus of Bonnaterre [ex Forskål]. – “Scarus sidjan Forskål in Niebuhr, 1775” [would be Scarus sidjan Fabricius [ex Forskål] in Niebuhr, 1775] is another name for this species, out of the version on p. 44 ‘Scarus dentibus Sidjan’, meaning ‘teeth of Scarus sidjan’; it is binominal, accompanied by a diagnosis, available, and an unused synonym of Siganus rivulatus Forskål & Niebuhr in Niebuhr, 1775. I hereby act as the first reviser of this case to select Scarus rivulatus as the senior synonym. The Scarus sidjan of LACÉPÈDE (1802: 1, 6) is not an independent species description, but based on “Scarus sidjan Forskål in Niebuhr, 1775”.

Siganus stellatus (Forskål in Niebuhr, 1775)


Forskål in Niebuhr (1775a: 26): “10. SCARUS stellatus; ovalis; fasciis annulis caeruleo-pallidis, subhexagonis, undique contiguis.”

Type locality: “Djiddâ” (Jeddah, Juddah/Saudi Arabia).

Genus name: Scarus.

Species name (Forskål, Fabricius in Niebuhr): stellatus.

Arabic name (Latinised, Forskål): Ghajthân; (Fabricius in Niebuhr): Ghajthân.

Remarks: This species was described by both Forskål and Fabricius in Niebuhr as Scarus stellatus. It is identical in both versions, binominal, accompanied by a diagnosis and description, and thus available as Scarus stellatus Forskål in Niebuhr, 1775, which was treated as valid since Bonnaterre (1788: 94) and Walbaum (1792: 691). Amphacanthus nuchalis Valenciennes in Cuvier & Valenciennes [ex Forskål], 1835 (Valenciennes in Cuvier & Valenciennes 1835: 140) is an unneeded new name for Scarus stellatus Forskål; it is available, and a junior synonym.

Acanthuridae – Surgeonfishes

Acanthurus Forskål in Niebuhr, 1775

Forskål in Niebuhr (1775a: 59): “(CHÆTODON) c) Acanthurus; dentibus unius seriei, rigidis, acutis, contiguis, vel simplicibus vel lobatis. Cauda in utroque latere aculeo uno vel
pluribus; exserto & rigido; vel mobili & recondogo. Diversum prorsus a Chaetodonte Genus; aliquando propriam constituentes familiarium.”.

Type species: *Teuthis hepatus* Linné, 1766 (subsequent designation; see below).

Remarks: The name *Acanthurus* was used by both Forsskål and Fabricius in *Niebuhr* (1775a) as a new subgenus name, providing a diagnosis, and Forsskål even stated that it is different enough from Chaetodon to be in future separated on the family level. The genus-group name is here considered as available as *Acanthurus* Forsskål in Niebuhr, 1775. The diagnosis includes characters of *Acanthus* and *Naso*. The type species was subsequently designated by Desmarest (1874: 246) as *Teuthis hepatus* Linné, 1766 [now *Paracanththus hepatus* (Linné, 1766)]. This, however, causes problems, as *Acanthurus* Forsskål in Niebuhr, 1775 would be the senior synonym of *Paracanththus* Bleeker, 1863. The next available genus-group name for *Acanthurus* of current usage would be *Harpurus* Forster, 1778 [Forster 1788: 84–85; species: *Harpurus fasciatus* Forster in Bloch & Schneider, 1801 by monotypy, which is a synonym of *Acanthus triostegus* (Linnaeus, 1758)]. A petition to the International Commission on Zoological Nomenclature will be needed to stabilise the current usage of the names *Acanthus* and *Paracanththus*.

*Acanthus gahhm* (Gmelin [ex Forsskål], 1789)

**Fabricius** [ex Forsskål] in *Niebuhr* (1775a: XIII): “[90. \[CHÆTODON m\] nigro-fuscus] b) *Gahhm*. ”.

**Fabricius** [ex Forsskål] in *Niebuhr* (1775a: 64): “90. [CHÆTODON nigrofuscus] b) *Gahhm* Arab. ægæ ab hoc distinguetur; nisi colore undique nigro: basi P. C. violacea: …”.

Type locality: – (Red Sea).

Genus name: *Chaetodon*.

Species/subspecies name ([Forsskål, Fabricius in Niebuhr]: nigrofuscus var. b).

Arabic name (Latinised, Forsskål, Fabricius in Niebuhr): Gahhm.

Remarks: This was intended as an unnamed variation of *Chaetodon nigrofuscus* by both Forsskål and Fabricius in *Niebuhr*; the name ‘Gahhm’ in the index on p. XIII and in the text on p. 64 clearly indicated to be the Arabic name, not the scientific name. Therefore, the name (and spelling) *Chaetodon gahhm* is not available out of *Niebuhr*’s (1775a) publication. The first available usage with the spelling *Chaetodon gahhm* is by Gmelin [ex Forsskål], 1789 (Gmelin 1789: 1268–1269); the name is therefore available as *Chaetodon gahhm* Gmelin [ex Forsskål], 1789. A previous author, Bonnaterre (1788: 83), just named the species ‘Le Gahhmm’ without presenting a scientific name. It is a valid species, the spelling of the name, however, has to be changed to ‘sohal’ due to prevailing subsequent usage (ICZN, Art. 33.2.3.1), with the currently used name *Acanthus gahhm* (Gmelin [ex Forsskål], 1789).

*Acanthus nigrofuscus* (Forsskål in Niebuhr, 1775)

**Forsskål** in *Niebuhr* (1775a: XIII): “[90. [CHÆTODON m] nigro-fuscus. Tæga. […, Arabic name]”.

**Forsskål** in *Niebuhr* (1775a: 64): “90. [CHÆTODON nigrofuscus; cauda utrinque spine recumbente.”.

Type locality: “DIDDE” (Jeddah, Juddah/Saudi Arabia).

Genus name: *Chaetodon*.

Species name ([Forsskål]: nigro-fuscus; [Fabricius in Niebuhr]: nigrofuscus).

Arabic name (Latinised, Forsskål, Fabricius in Niebuhr): Tæga.

Remarks: This species was described by both Forsskål and Fabricius in *Niebuhr* as *Chaetodon nigrofuscus* (version on p. 64; in the index as *Chaetodon nigro-fuscus*), and was distinguished in the remarks from *Chaetodon nigricans* Linnaeus, 1758 as having an undivided caudal fin. It is binominal in both versions, accompanied by a diagnosis and description, and thus available as *Chaetodon nigrofuscus* Forsskål in Niebuhr, 1775. The species was treated as valid since Walbaum (1792: 438).

*Acanthus sohal* (Gmelin [ex Forsskål], 1789)

**Fabricius** [ex Forsskål] in *Niebuhr* (1775a: XIII): “89. [CHÆTODON l] sohal; fossula vulneriformi. Sohal. […, Arabic name]”.

**Fabricius** [ex Forsskål] in *Niebuhr* (1775a: 63–64): “89. CHÆTODON SOHAL; cauda utrinque carina ossea, in fossula rubra.”.

Type locality: – (Red Sea); – “Aliis” (Red Sea).

Type material: Lectotype: ZMUC P.6749 (dry skin); paralectotype: ZMUC P.6750 (dry skin) (MÖLLER 2006). Lectotype designation by Klausewitz & Nielsen (1965: 24; see also pl. 34).

Genus name: *Chaetodon*.

Species name (Forsskål): – (or *Chaetodon lineatus* [Linnaeus, 1758?]; [Fabricius in Niebuhr]: sohal (or *Chaetodon lineatus* [Linnaeus, 1758])).

Arabic names (Latinised, Forsskål, Fabricius in Niebuhr): Sohal, Sahal, Schausch.

Remarks: Forsskål used the Arabic name ‘sohal’ as a substitute for a Latin name possibly to be designated, but was not sure if this species was a synonym of *Chaetodon lineatus* Linnaeus, 1758. Fabricius in Niebuhr (1775a) described it as *Chaetodon sohal*, but again stated that this may be *Chaetodon lineatus*. Most understandably, Forsskål had planned to solve the case later, but never did, nor did Fabricius in Niebuhr (1775a). As neither Forsskål nor Fabricius in Niebuhr (1775a) clearly decided how to name the species, the name is not available. The first available usage of the name is *Chaetodon sohar* of Gmelin [ex Forsskål], 1789 (Gmelin 1789: 1268). The species was treated as valid since Walbaum (1792: 441–442); the spelling of the name, however, has to be changed to ‘sohal’ due to prevailing subsequent usage (ICZN, Art. 33.2.3.1). The species has the currently used name *Acanthus sohal* (Gmelin [ex Forsskål], 1789). The species was subsequently described by Bloch & Schneider (1801: 216) as *Acanthus carinatus*, besides another species account on *Acanthus sohal* (see Bloch & Schneider 1801: 215); *Acanthus carinatus* is a junior synonym of *Acanthus sohal* (Gmelin [ex Forsskål], 1789).

*Naso unicorns* (Forsskål in Niebuhr, 1775)

**Forsskål** in *Niebuhr* (1775a: XIII): “89. [CHÆTODON k] unicorns; fronte cornuta. Abu garn. […, Arabic name]”.

**Forsskål** in *Niebuhr* (1775a: 63): “88. CHÆTODON UNICORNIS fronte cornuta; cauda carinis utrinque duabus, elatis.”

**Forsskål** [ex Baurenfeind] in *Niebuhr* (1776: 7): “CHÆTODON unicorns. Pag. 63, n. 88. (TAB. XXIII)”.

Type locality: “DIIDDE” (Jeddah, Juddah/Saudi Arabia).

Type material: Lectotype designated by Frické (1999: 549) as the specimen illustrated by Forsskål [ex Baurenfeind] in *Niebuhr* (1776: pl. 23).

Genus name: *Chaetodon*.

Species name (Forsskål, Fabricius in Niebuhr): unicorns.

Arabic name (Latinised, Forsskål, Fabricius in Niebuhr): Abu garn.

Remarks: This species was described by both Forsskål and Fabricius in *Niebuhr* as *Chaetodon unicorns*. It is binominal in both versions, accompanied by a diagnosis and descrip-
tion, and thus available as Chaetodon unicornis Forsskål in Niebuhr, 1775. The species was treated as valid since Bonnaterre (1788: 82) and Walbaum (1792: 440). It was illustrated by Forsskål [ex Baurenfeind] in Niebuhr (1776: pl. 23). Monoceros biaculeatus Bloch & Schneider [ex Forsskål], 1801 (Bloch & Schneider 1801: 180–181) was subsequently described as a new name for Forsskål’s Chaetodon unicornis, and is a junior synonym. – Naso fronticorinis Lacépède [ex Commerson, Forsskål], 1801 (Lacépède 1801: 105, 106–110, pl. 7, fig. 2) is an unneeded replacement name for Chaetodon unicornis Forsskål in Niebuhr, 1775, based in part on Forsskål’s species and in part on the ‘Nasus fronticorinis fuscus’ in a manuscript description by Commerson (1767–1771); it is a junior synonym.

Sphyraenidae – Barracudas

Sphyraena barracuda Edwards in Catesby, 1771
Locality: – (Red Sea).
Remarks: This record is based on the species Esox sphyrena (non Linnaeus, 1758); that species is restricted to the Atlantic Ocean including Mediterranean Sea, and does not occur in the Red Sea. Forsskål’s specimen was identified by Klausewitz & Nielsen (1965: 25) as Sphyraena picuda Bloch & Schneider, 1801, which is a junior synonym of Sphyraena barracuda (Edwards in Catesby, 1771).

Sphyraena jello Cuvier in Cuvier & Valenciennes, 1829
Type locality: – (Red Sea).
Genus name: Esox.
Species/subspecies name (Forsskål): β; (Fabricius in Niebuhr): sphyrena minor.
Arabic name (Latinised, Forsskål, Fabricius in Niebuhr): Djadd.
Remarks: In his draft, Forsskål treated this species as an undifferentiated variety of Esox sphyrena, described as ‘minor, squamis parvi’ with the Arabic name ‘Djadd’. He did not decide if this was an undescribed species at all. We cannot be certain if the data source for this description was by Forsskål or Niebuhr or both; the description was compiled by Fabricius. Fabricius in Niebuhr, however, used the ‘minor’ as the name for the variety. The name is accompanied by a very brief diagnosis, but recognisable, and therefore available as Esox sphyrena minor Fabricius [ex Forsskål] in Niebuhr, 1775, the authorship pending a decision of ICZN. Unfortunately, this in an unused senior synonym of Sphyraena jello Cuvier in Cuvier & Valenciennes, 1829. The name Esox sphyrena minor is rejected here, in accordance with Art. 23.2 and the preamble of ICZN; an application to the International Commission on Zoological Nomenclature will be necessary to retain the name Sphyraena jello, which is considered as a valid species.

Trichiuridae – Cutlassfishes

Trichiurus lepturus (Linnaeus, 1758)

Fabricius [ex Forsskål] in Niebuhr (1775a: 72): “106. CLUPEA HAUMELA; lanceolate, nuda; pinnis V & A. nullis; dorsali per totum dorsum extensa: cauda linearis apicigra.”
Type locality: “Mochhe” (Al-Mukhā/Yemen).
Genus name: Clupea.
Species name (Fabricius): – (politā); (Fabricius in Niebuhr): haumela.
Arabic name (Latinised, Forsskål, Fabricius in Niebuhr): Huamela.
Remarks: In his draft, Forsskål used the Arabic name ‘haumela’ as a substitute for a scientific name possibly to be designated. He did not decide if this was an undescribed species at all. We cannot be certain if the data source for this description was by Forsskål or Niebuhr or both; the description was compiled by Fabricius. Fabricius in Niebuhr described the species as Clupea haumela in both the index and text. The use of ‘haumela’ as the species name was clearly decided and authored by Fabricius [ex Forsskål]. The name is binomial both in the index and in the text, and accompanied by a diagnosis and description; it would therefore be available as Clupea haumela Fabricius [ex Forsskål] in Niebuhr, 1775, the authorship pending a decision of ICZN. However, it is a junior synonym of Trichiurus lepturus (Linnaeus, 1758). The species was subsequently misspelled as Trichiurus hamrela by Bloch and Schneider (1801: 518; correction to haumela on p. 584); this is not an independent species description.
scombrus (non Linnaeus, 1758); according to the Turkish name, the record is based on Scomber colias Gmelin, 1789, a species which is regularly found in shallow water, both around Istanbul and Izmir; the Turkish name of Scomber scombrus would be ‘Uşkumru’ (Fricke et al. 2007: 110).

**Remarks:** This is a misidentification of the species Pleuronectes hippoglossus (non Linnaeus, 1758); the latter species is Hippoglossus hippoglossus (Linnaeus, 1758), and restricted to the North Atlantic, not occurring south of the Bay of Biscay. Forsskål’s Maltese record is unplaceable within the Pleuronectiformes; it may have been based on Bothus podas (family Bothidae).

**Locality:** “Melita” (La Valletta/Malta).**

**Remarks:** This is a misidentification of the species Pleuronectes maximus Linnaeus, 1758; the latter species is restricted to the North Atlantic, not occurring south of the Bay of Biscay. Forsskål’s Maltese record is unplaceable within the Pleuronectiformes; it may have been based on Bothus podas (family Bothidae).

**Locality:** “Melita” (La Valletta/Malta).**

**Remarks:** This is a name only (nomen nudum), listed as Pleuronectes psetta Forsskål [ex Anonymus] in Niebuhr, 1775; neither accompanied by a diagnosis nor an indication, and therefore not available; the record was based on Psetta maxima (Linnaeus, 1758).

**Locality:** “Melita” (La Valletta/Malta).**

**Remarks:** This species may have been confused with Arnoglossus imperialis (Rafinesque-Schmaltz, 1810) or another flatfish species, which have the actual vernacular Maltese name “Lingwata” (Anonymous 2007b).

**Locality:** “Melita” (La Valletta/Malta).**

**Remarks:** This record from Malta was based on a name only, and therefore not available; the record was based on Psetta maxima (Linnaeus, 1758).

**Locality:** “Melita” (La Valletta/Malta).**

**Remarks:** This record is unplaceable within the Pleuronectiformes; it may have been based on Arnoglossus sp. (family Bothidae).
Balistidae – Triggerfishes

**Balistapus undulatus** (Park, 1797)

**Forskal** in **Niebuhr** (1775a: XVII): “[47. **B**ALI**S**TES (aculeatus) b] minor; corpore lineis flavis, obliquis.”

Type locality: – (Red Sea) (erroneously listed as ‘Izmir and/or Istanbul, Turkey’ by Eschmeyer 2007).

Genus name: Balistes.

Species/subspecies name (**Forskal, Fabricius in Niebuhr**): *aculeatus minor*.

Remarks: **Forskal** described this new variety/subspecies of **Balistes aculeatus** (non Linnaeus, 1758), under the name **Balistes aculeatus minor**; the name was accompanied by a brief diagnosis which is nevertheless characteristic for the species, and the name is available as **Balistes aculeatus minor** **Forskal** in Niebuhr, 1775. The name is based on the species which is currently named **Balistapus undulatus** (Park, 1797); **Balistes undulatus** Park, 1797 is a junior synonym of **Balistes aculeatus minor** **Forskal** in Niebuhr, 1775. The latter name is here is here rejected according to the preamble and Art. 23.2 of ICZN. In order to preserve stability of nomenclature, and retain the frequently used name **Balistapus undulatus** (Park, 1797), a petition to the International Commission on Zoological Nomenclature is advisable to suppress the name **Balistes aculeatus minor** **Forskal** in Niebuhr, 1775.

**Balistes capriscus** Gmelin, 1789

**Forskal** [ex Anonymus] in **Niebuhr** (1775a: XVIII): “[Che- todon] vetula.”

Locality: “Melita” (La Valletta/Malta).

Remarks: The name ‘vetula’ was erroneously listed under the name **Chetodon paru**, but actually belongs to the genus name **Balistes** one line above. This is a misidentification of the Linnean species **Balistes vetula**; the Maltese record is based on **Balistes capriscus** Linnaeus, 1758.

?**Canthidermis macrolepis** (Boulenger, 1888)

**Forskal** in **Niebuhr** (1775a: XVII): “46. BALISTES a) aculeatus; major: Arab. Schaaram [..., Arabic name] Quinque seriebus aculeorum in cauda. Piscis insipidus & foetidus.”

Locality: – (Red Sea).

Remarks: This is a misidentification of the species **Balistes aculeatus** Linnaeus, 1758 [now named **Rhinecanthus aculeatus** (Linnaeus, 1758)], but is a new variety ‘**Balistes aculeatus major**’ (see **Balistapus undulatus**, above, for the other variety, **Balistes aculeatus minor**). The name, however, is not available as **Balistes aculeatus major** **Forskal** in Niebuhr, 1775, as the diagnosis is insufficient. Judging from the five series of spines on the caudal peduncle and the large size, the record may have been based on **Canthidermis macrolepis** (Boulenger, 1888).

“**Rhinecanthus assasi** (**Forskal** in Niebuhr, 1775)”

**Forskal** in **Niebuhr** (1775a: XIV): “112. BALISTES verrucosus. Azzazi. [..., Arabic name].


Type locality: “DIDDE” (Jeddah, Juddah/Saudi Arabia).

Genus name: Balistes.

Species name (**Forskal**): **verrucosus**; (**Fabricius in Niebuhr**): assasi.

Arabic names (Latinised, **Forskal**): Azzazi; (**Fabricius in Niebuhr**): Djemel, Azzazi.

Remarks: In his draft, **Forskal** misidentified this species **Balistes verrucosus** (non Linnaeus, 1758) in the index, with ‘Azzazi’ as the Arabic name, but in the text he used the Arabic name ‘azzazi’ or ‘assasi’ as a substitute for a Latin species name possibly to define, in the case the species from Jeddah turned later out to be undescribed. We cannot be certain if the data source for this description was by **Forskal** or **Niebuhr** or both; the description was compiled by **Fabricius**. **Fabricius** [ex **Forskal**] in **Niebuhr** described the species in the text as **Balistes assasi**. The use of ‘assasi’ as the species name was clearly decided and authored by **Forskal**. The name is binominal in the text, and accompanied by a description; it would therefore be available as **Balistes assasi** **Fabricius** [ex **Forskal**] in Niebuhr, 1775, with the actual name **Rhinecanthus assasi** (**Fabricius** [ex **Forskal**] in Niebuhr, 1775), the authorship pending a decision of ICZN. The species was considered as valid since Walbaum (1792: 465).

Ostraciidae – Boxfishes

**Ostracion cubicus** Linnaeus, 1758


Type locality: – (Red Sea).

**Tetrosomus gibbosus** (Linnaeus, 1758)

**Forskal** in **Niebuhr** (1775a: XIV): “113. OSTRACION turritus; dorso gibbo. Djemel!.”

**Forskal** in **Niebuhr** (1775a: 75–76): “113. OSTRACION turritus; supercilis dorsoque spinis solitariis; abdomen spinis utringsque quatuor.”

Type locality: “MOCHHE” (Al-Mukhâ/Yemen).

Genus name: Ostracion.

Species name (**Forskal, Fabricius in Niebuhr**): turritus.

Arabic name (Latinised, **Forskal, Fabricius in Niebuhr**): Djemel.

Remarks: This species was described by both **Forskal** and **Fabricius in Niebuhr** as **Ostracion turritus**. The name is binominal, accompanied by a diagnosis and description, and is available as Ostracion turritus **Forskal** in Niebuhr, 1775; it was treated as valid by Bonnaterre (1788: 22) and Walbaum (1792: 476–477). Ostracion turritus is a junior synonym of **Ostracion gibbosus** Linnaeus, 1758, with the currently used name **Tetrosomus gibbosus** (Linnaeus, 1758).

?**Tetrosomus gibbosus** (Linnaeus, 1758)

**Forskal** [ex Anonymus] in **Niebuhr** (1775a: XVIII): “Ostracion gibbusos.”

Locality: “Melita” (La Valletta/Malta).

Remarks: The species **Tetrosomus gibbosus** (Linnaeus, 1758) was assumed to have immigrated through the Suez Canal into the southeastern Mediterranean. If **Forskal** [ex Anonymus] in **Niebuhr**’s (1775a) record is correct (and there is no species known in the Mediterranean with which it could be confused), this would mean that the species may have been present in the Mediterranean even before the opening of Suez Canal in 1869.

Tetraodontidae – Puffers

Tetraodontidae, indet.

**Fabricius** [ex **Forskal**] in **Niebuhr** (1775a: XVII): “51. [TETRAODON] c Abu-Kubah. Arab. [..., Arabic name].”

Type locality: – (Red Sea).
Genus name: Tetraodon.
Species name (Forsskål): --; (Fabricius in Niebuhr): abu-kobhla.
Arabic name (Latinised, Forsskal, Fabricius in Niebuhr): Abu kobhla.
Remarks: Forsskal used the Arabic name ‘Abu Kobhla’ as a substitute for a species which he could not identify; he did not intend to use it as a scientific species name. Fabricius [ex Forsskal] in Niebuhr named the species in the index as Tetraodon abukobhla (original spelling of species name ‘abu-kobhla’). The name is binomial in the index, but neither accompanied by a diagnosis or a description; it is therefore not available as Tetraodon abukobhla Fabricius [ex Forsskal] in Niebuhr, 1775. It is unplaceable within the family Tetraodontidae. Eschmeyer (2007) erroneously listed the name as ‘Tetraodon abukobhla’.

Tetraodontidae, indet.
Locality: “Melita” (La Valletta/Malta).
Remarks: This is not an independent species description with the name Ostracion capite testudineus; the species was either deliberately or erroneously placed in the genus Ostracion. The species is valid, and the currently used name is Lagocephalus lagocephalus (Linnaeus, 1758).

Diodontidae – Porcupinefishes

Diodon hystrix Linnaeus, 1758
Locality: – (Red Sea).

Molidae – Molas

Mola mola (Linnaeus, 1758)
Locality: “Melita” (La Valletta/Malta). Local Maltese name: “Il Rizza”.
Remarks: This is not an independent species description with the name Ostracion mola, but is based on the Linnaean species Diadon hystrix; the species was either deliberately or erroneously placed in the genus Ostracion. The species is valid, and the currently used name is Mola mola (Linnaeus, 1758).

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Valid taxa are printed in **bold face**. ‘ı’ and ‘æ’ are listed as ‘ae’, ‘ö’ as ‘oe’, and ‘ü’ as ‘ue’.

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