

Original Articles

Omani fishes collected in the vicinity of Mutrah, Gulf of Oman and Madrakah, southern Oman through 3 to 13 October 2010

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Summary : 132 species of 45 families were confirmed in Omani fishes collected in the vicinity of Mutrah, Gulf of Oman and Madrakah, southern Oman through 3 to 13 October 2010. Five new records from Oman were confirmed and a newly described species of sciaenid fish was confirmed : *Albula oligolepis* (the Albulidae, photo basis), *Ostichthys acanthorhinus* (the Holocentridae), *Gerres infasciatus* (the Gerreidae), *G. macracanthus* (the Gerreidae) as the first record from Oman. *Acanthopagrus catenura* (the Sparidae), *A. omanensis* (the Sparidae), and *Sparidentex belaywesi* (the Sparidae) are the second record after the original description or after the first record from Oman. A newly collected species *Johnius majan* (the Sciaenidae) in this survey was separately described by the first, second and last authors as a new to science, diagnosed as upper axil of pectoral fin of the species.

Key words : Oman, Mutrah, Madrakah, Five new records, *Johnius majan*

Introduction

Omani fish fauna was reviewed by Randall (1995) who listed and covered 930 fish species with notes at each species as well as historical studies of Omani fishes in Ichthyology. Subsequently, important ichthyological knowledge, reported by Al-Abdessaalam (1995), Jawad and Al-Mamry (2009), and Al-Jufaili *et al.* (2010) have been studied. Al-Jufaili *et al.* (2010) compiled each fish record and listed 1,179 fish species as Oman fish diversity. However, the authors consider that such fish accounts on rich Omani fishes would be still underestimated because of paucity of enough scientific research. Further faunal research is urgently needed.

Fortunately, the joint of fish faunal research in both Japanese and Omani fish researchers have been personally performed in the vicinity of both Mutrah, Gulf of Oman and Madrakah, southern Oman in 3-13

October 2010 as the first step except cartilaginous fishes in this time. The coastal and commercial fish collection were mainly purchased at fish markets and/or captured by fishing, and then, carefully identified for their specimens. Furthermore, many photographs in fish samples at markets and on fish catches by local amateur fishermen were taken and have been tried for identification of their fishes. We report 4 new records from Oman, the several second records and a highly undescribed species in our present samplings with notes of fish resources and commercial views as important knowledge on rich Omani fishes.

Material and Methods

Samplings have been performed in the vicinity of Mutrah, Gulf of Oman and Madrakah, southern Oman. In the Mutrah and Madrakah fish markets, fish specimens were purchased and also collected from the

above localities by fishing or donation of local fishermen. Then each specimen was catalogued. Some fish specimens which we could not get were photographed at the markets and their localities of fish landing port and fishing sites, and also shown as the Photograph Database Number (as MUFS below) like "MUFS P-Oman-00001". Acronym is followings : MUFS, Division of Fisheries Science, Department of Marine Biology & Environmental Sciences, Faculty of Agriculture, University of Miyazaki, Japan ; OMMSFC, Oman Marine Science and Fisheries Centre, Muscat, Sultanate of Oman. Standard length is abbreviated as SL. Classification in order follows Nelson (2004) and identifications are shown as like, for example, Chirocentridae (Randall, 1995) at each family below. Standard length, fork length, and total length are abbreviated as SL, FL and TL, respectively.

Results

Fish List (3-13 October 2010)

Albulidae (Hidaka *et al.*, 2008 ; Randall, 1995)

- 1) *Albula oligolepis* Hidaka, Iwatsuki & Randall, 2008 : MUFS P-Oman-00001 (Fig. 1), ca. 50 cm SL, Mutrah fish market, Oman, 11 Oct., 2010.



Fig. 1. *Albula oligolepis* : MUFS P-Oman-00001, ca. 40 cm SL, Mutrah fish market, Oman, 11 Oct., 2010.

Chirocentridae (Randall, 1995)

- 2) *Chirocentrus nudus* Swainson, 1839 : MUFS P-Oman-00002 (Plate 1A), ca. 50 cm SL, Mutrah fish market, Oman, 14 Oct., 2010.

Ariidae (Randall, 1995)

- 3) *Netuma thalassina* (Rüppell, 1837) : MUFS P-Oman-00003 (Plate 1B), ca. 100 cm SL, Mutrah fish market, Oman, 11 Oct., 2010. Remarks. The genus names of the order Siluriformes was recently reviewed by Ferraris (2007) and is justified as appropriate genus name for this species.

Clupeidae (Randall, 1995 ; Whitehead, 1985)

- 4) *Nematalosa nasus* (Bloch, 1795) : MUFS 33769-33774, 6 specimens, 128-151 mm SL, Mutrah fish market, Oman, 12 Oct., 2010.

- 5) *Sardinella albella* (Valenciennes, 1847) : MUFS 33776-33778, 3 specimens, 96-109 mm SL, Mutrah fish market, Oman, 12 Oct., 2010.

- 6) *Sardinella longiceps* Valenciennes, 1847 : MUFS 33745, 1 specimen, 182 mm SL, Mutrah fish market, Oman, 12 Oct., 2010.

Synodontidae (Randall, 1995)

- 7) *Saurida tumbil* (Bloch, 1795) : MUFS 33721, 1 specimen, 405 mm SL, Mutrah fish market, 11 Oct., 2010 ; MUFS 33759, 1 specimen, 175 mm SL, Mutrah fish market, 12 Oct., 2010.

Batrachoididae (Greenfield, 2006)

- 8) *Colletteichthys dussumieri* (Valenciennes, 1837) : MUFS 33531, 1 specimen, 96 mm SL, Mutrah fish market, Oman, 4 Oct., 2010. Remarks. The genus name *Colletteichthys* was recently changed from *Austrobatrachus* by Greenfield (2006).

Mugilidae (Thomson, 1984)

- 9) *Oedalechilus labiosus* (Valenciennes, 1836) : MUFS 33524-33525, 2 specimens, 106-121 mm SL, Mutrah fish market, Oman, 4 Oct., 2010.

Hemiramphidae (Randall, 1995)

- 10) *Hyporhamphus unicuspidis* Collette & Parin, 1978 : MUFS 33760-33762, 3 specimens, 145-155 mm SL, Mutrah fish market, Oman, 12 Oct., 2010.

Holocentridae (Randall, 1995 ; Randall, Shimizu & Yamakawa, 1982)

- 11) *Ostichthys acanthorhinus* Randall, Shimizu & Yamakawa, 1982 : MUFS 33756 (Fig. 2), 1 specimen, 172 mm SL, Mutrah fish market, Oman, 12 Oct., 2010. Remarks. Diagnosed with anterior end of each nasal bone with a sharp forward-directed spine projecting to or beyond median upper lip and a short stout spine at corner of preopercle.



Fig. 2. *Ostichthys acanthorhinus* : MUFS 33756 172 mm SL, Mutrah fish market, Oman, 12 Oct., 2010.

- 12) *Sargocentron rubrum* (Forsskål, 1775) : MUFS P-Oman-00004 (Plate 1C), 1 specimen, ca. 150 mm SL, Mutrah fish market, Oman, 12 Oct., 2010.
- Serranidae** (Heemstra & Randall, 1993 ; Randall, 1995)
- 13) *Cephalopholis hemistictos* (Rüppell, 1830) : MUFS P-Oman-00005 (Plate 1D), 1 specimen, ca. 20 cm SL, Mutrah fish market, Oman, 14 Oct., 2010.
- 14) *Epinephelus epistictus* (Temminck & Schlegel, 1842) : MUFS 33625, 1 specimen, 297 mm SL, Mutrah fish market, Oman, 9 Oct., 2010 ; MUFS 33626, 1 specimen, 350 mm SL, Mutrah fish market, Oman, 9 Oct., 2010. Remarks. Heemstra and Randall (1993) firstly did not include this species but Randall (1995) subsequently listed this species, which was very common fish in Mutrah fish markets in our examination period (Fig. 3).



Fig. 3. *Epinephelus epistictus* : MUFS 33625, 297 mm SL, Mutrah fish market, Oman, 9 Oct., 2010.

- 15) *Epinephelus flavocaeruleus* (Lacepède, 1802) : MUFS 33547 (only for tissue sample), 1 specimen, ca. 55 cm SL, Madrakah, Oman, 5 Oct., 2010.
- 16) *Epinephelus poecilonotus* (Temminck & Schlegel, 1842) : MUFS P-Oman-00006 (Plate 1E), 1 specimen, ca. 60 cm SL, Mutrah fish market, Oman, 11 Oct., 2010.
- 17) *Epinephelus polylepis* Randall & Heemstra, 1991: MUFS 33585 (only for tissue sample), 1 specimen, 494 mm SL, Madrakah, Oman, 6 Oct., 2010.
- 18) *Epinephelus retouti* Bleeker, 1868 : MUFS P-Oman-00007 (Plate 1F), 1 specimen, ca. 25 cm SL, Madrakah, Oman, 6 Oct., 2010.
- 19) *Epinephelus stoliczkae* (Day, 1875) : MUFS 33706-33707, 2 specimens, 97-177 mm SL, 10 Oct., 2010.

- 20) *Epinephelus tukula* Morgans, 1959 : MUFS 33609 (only for head), 1 specimen, 400 mm SL, Madrakah, Oman, 7 Oct., 2010.

Pseudochromidae (Randall, 1995)

- 21) *Pseudochromis omanensis* Gill & Meek, 1993 : MUFS 33569, 1 specimen, 77 mm SL, Madrakah, Oman, 6 Oct., 2010.

Opistognathidae (Randall, 1995)

- 22) *Opistognathus muscatensis* Boulenger, 1888 : MUFS 33627, 1 specimen, 262 mm SL, Mutrah fish market, 9 Oct., 2010.

Apogonidae (Randall, 1995)

- 23) *Cheilodipterus arabicus* (Gmelin, 1789) : MUFS 33648, 1 specimen, 116 mm SL, Mutrah fish market, Oman, 8 Oct., 2010.

- 24) *Cheilodipterus novemstriatus* (Rüppell, 1838) : MUFS 33649, 1 specimen, 97 mm SL, Mutrah fish market, Oman, 8 Oct., 2010.

- 25) *Holapogon maximus* (Boulenger, 1888) : MUFS 33640-33642, 2 specimens, 161-186 mm SL, Mutrah fish market, Oman, 9 Oct., 2010.

Sillaginidae (Randall, 1995)

- 26) *Sillago arabica* McKay & McCarthy, 1989 : MUFS 33570-33572, 3 specimens 153-166 mm SL, Madrakah, Oman, 6 Oct., 2010, hand and line.

Pomatomidae (Randall, 1995)

- 27) *Pomatomus saltatrix* (Linnaeus, 1766) : MUFS 33605-33606, 2 specimens 122-128 mm SL, Madrakah, Oman, 7 Oct., 2010.

Carangidae (Randall, 1995 ; Smith-Vaniz, 1999)

- 28) *Alectis ciliaris* (Bloch, 1787) : MUFS 33657, 1 specimen, 161 mm SL, Mutrah fish market, Oman, 9 Oct., 2010.

- 29) *Alepes djedaba* (Forsskål, 1775) : MUFS P-Oman-00008 (Plate 1G), 1 specimen, ca. 20 cm SL, Madrakah, Oman, 6 Oct., 2010.

- 30) *Caranx heberi* (Bennett, 1830) : MUFS P-Oman-00009 (Plate 1H), 1 specimen, ca. 30 cm SL, Madrakah, Oman, 6 Oct., 2010.

- 31) *Caranx sexfasciatus* Quoy & Gaimard, 1825 : MUFS 33764, 1 specimen, 157 mm FL, Mutrah fish market, Oman, 12 Oct., 2010.

- 32) *Carangoides gymnostethus* (Cuvier, 1833) : MUFS 33644, 1 specimen 135 mm FL, Mutrah fish market, Oman, 9 Oct., 2010.

- 33) *Decapterus russelli* (Rüppell, 1830) : MUFS 33624, 1 specimen, 175 mm FL, Mutrah fish market, Oman, 9 Oct., 2010 ; MUFS 33658, 1 specimen, 168 mm FL, Mutrah fish market, Oman, 9 Oct., 2010 ; MUFS 33768, 1 specimen, 186 mm FL, Mutrah fish market, Oman, 12 Oct.,

- 2010.
- 34) *Elagatis bipinnulata* (Quoy & Gaimard, 1825) : MUFS P-Oman-00010 (Plate 1I), 1 specimen, ca. 40 cm SL, Madrakah, Oman, 6 Oct., 2010.
- 35) *Gnathanodon speciosus* (Forsskål, 1775) : MUFS 33694-33696, 3 specimens 108-128 mm FL, Mutrah fish market, Oman, 10 Oct., 2010.
- 36) *Selar crumenophthalmus* (Bloch, 1793) : MUFS 33765-33766, 2 specimen, 139-173 mm FL, Mutrah fish market, Oman, 12 Oct., 2010.
- 37) *Selaroides leptolepis* (Cuvier, 1833) : MUFS 33767, 1 specimen, 108 mm FL, Mutrah fish market, Oman, 12 Oct., 2010.
- 38) *Trachinotus africanus* Smith, 1967 : MUFS P-Oman-000011 (Plate 1J), 1 specimen, ca. 60 cm SL, Mutrah fish market, Oman, 13 Oct., 2010.
- 39) *Trachinotus baillonii* (Lacepède, 1801) : MUFS 33579, 1 specimen, 99 mm SL, Madrakah, Oman, 6 Oct., 2010.
- 40) *Trachinotus mookalee* Cuvier, 1832 : MUFS P-Oman-00012 (Plate 2A), 1 specimen, ca. 30 cm SL, Mutrah fish market, Oman, 13 Oct., 2010.
- 41) *Uraspis helvola* (Forster, 1801) : MUFS P-Oman-00013 (Plate 2B), 1 specimen, ca. 20 cm SL, Mutrah fish market, Oman, 14 Oct., 2010.
- Leiognathidae** (Randall, 1995; Woodland *et al.* 2001)
- 42) *Leiognathus fasciatus* (Lacepède, 1803) : MUFS 33622-33623, 33645-33646, 4 specimens, 99-108 mm SL, Mutrah fish market, Oman, 9 Oct., 2010; MUFS 33763, 1 specimen, 99 mm SL, Mutrah fish market, Oman, 12 Oct., 2010 ; MUFS 33782-33784, 3 specimens, 73-75 mm SL, Mutrah fish market, Oman, 13 Oct., 2010.
- Lutjanidae** (Allen, 1985 ; Randall 1995)
- 43) *Lutjanus bengalensis* (Bloch, 1790) : MUFS 33521-33523, 3 specimens, 80-145 mm SL, Mutrah fish market, Oman, 4 Oct., 2010 ; MUFS 33723-33724, 2 specimens, 148-152 mm SL, Mutrah fish market, Oman, 11 Oct., 2010.
- 44) *Lutjanus caeruleolineatus* (Rüppell, 1838) : MUFS 33561-33563, 3 specimens, 224-290 mm SL, Madrakah, Oman, 6 Oct., 2010.
- 45) *Lutjanus lutjanus* Bloch, 1790 : MUFS 33700-33701, 2 specimens, 144-200 mm SL, Mutrah fish market, Oman, 10 Oct., 2010.
- 46) *Lutjanus madras* (Valenciennes, 1831) : MUFS 33568, 33576, 2 specimens, 224-241 mm SL, Madrakah, Oman, 6 Oct., 2010.
- 47) *Lutjanus monostigma* (Cuvier, 1828) : MUFS 33558-33560, 3 specimens, 161-195 mm SL, Madrakah, Oman, 6 Oct., 2010 ; MUFS 33650-33652, 3 specimens, 136-138 mm SL, Mutrah fish market, Oman, 9 Oct., 2010 ; MUFS 33697-33699, 3 specimens, 111-142 mm SL, Mutrah fish market, Oman, 10 Oct., 2010.
- 48) *Pinjalo pinjalo* (Bleeker, 1850) : MUFS 33519, 1 specimen, 164 mm SL, Mutrah fish market, Oman, 4 Oct., 2010.
- 49) *Pristipomoides filamentosus* (Valenciennes, 1830) : MUFS 33617, 33659-33660, 3 specimens, 207-229 mm SL, Mutrah fish market, Oman, 9 Oct., 2010
- Cæsionidae** (Carpenter, 1988 ; Randall, 1995)
- 50) *Caesio varilineata* Carpenter, 1987 : MUFS 33757, 1 specimen, 248 mm SL, Mutrah fish market, Oman, 12 Oct., 2010. Remarks. Other species
- Gerreidae** (Randall, 1995 ; Iwatsuki *et al.*, 1996 ; Iwatsuki & Kimura, 1998 ; Iwatsuki *et al.* 2001)
- 51) *Gerres infasciatus* Iwatsuki & Kimura, 1998 : MUFS 33618-33619 (Fig. 4), 2 specimens, 182-191 mm SL, Mutrah fish market, Oman, 9 Oct., 2010 ; MUFS 33666, 1 specimen, 190 mm SL, Mutrah fish market, Oman, 9 Oct., 2010 ; MUFS 33711-33715, 5 specimens, 139-169 mm SL, Mutrah fish market, Oman, 11 Oct., 2010. Remarks. Diagnosed with yellow tip and color on dorsal-fin rays without bands (Iwatsuki & Kimura, 1998).



Fig. 4. *Gerres infasciatus* : 33619, 191 mm SL, Mutrah fish market, Oman, 9 Oct., 2010.

- 52) *Gerres longirostris* (Lacepède, 1801) : MUFS 33515-33517, 3 specimens, 154-176 mm SL, Mutrah fish market, Oman, 4 Oct., 2010 ; MUFS 33567, 1 specimen, 170 mm SL, Mutrah fish market, Oman, 6 Oct., 2010. Remarks. This species has long been identified as *G. acinaces* (Bleeker), which is a junior synonym of *G. longirostris*, reported by Iwatsuki *et al.* (2001).
- 53) *Gerres macracanthus* Bleeker, 1854 : MUFS 33667 (Fig. 5), 1 specimen, 103 mm SL, Mutrah fish market, Oman, 10 Oct., 2010 ; MUFS 33785,

1 specimen, 73 mm SL, Mutrah fish market, Oman, 13 Oct., 2010. Remarks. Diagnosed with slender body and several indistinct vertical bands on the body (Iwatsuki *et al.*, 1996).



Fig. 5. *Gerres macracanthus* : MUFS 33667, 103 mm SL, Mutrah fish market, Oman, 10 Oct., 2010

- 54) *Gerres oyena* (Forsskål, 1775) : MUFS 33518, 1 specimen, Mutrah fish market, Oman, 4 Oct., 2010 ; MUFS 33544-33545, 2 specimens, 120-144 mm SL, Mutrah fish market, Oman, 5 Oct., 2010 ; MUFS 33620, 1 specimen, 251 mm SL, Mutrah fish market, Oman, 9 Oct., 2010 ; MUFS 33781, 1 specimen, 151 mm SL, Mutrah fish market, Oman, 13 Oct., 2010.

Haemulidae (Randall, 1995)

- 55) *Diagramma picta* (Thunberg, 1792) : MUFS 33685, 1 specimen, 172 mm SL, Mutrah fish market, Oman, 10 Oct., 2010.
- 56) *Plectrohinchus flavomaculatus* (Cuvier, 1830) : MUFS P-Oman-00014 (Plate 2C), 1 specimen, ca. 40 cm SL, Mutrah fish market, Oman, 13 Oct., 2010.
- 57) *Plectrohinchus gaterinus* (Forsskål, 1775) : MUFS P-Oman-00015 (Plate 2D), 1 specimen, ca. 40 cm SL, Mutrah fish market, Oman, 13 Oct., 2010.
- 58) *Plectrohinchus sordidus* (Klunzinger, 1870) : MUFS 33686, 1 specimen, 194 mm SL, Mutrah fish market, Oman, 10 Oct., 2010.
- 59) *Pomadasys aheneus* McKay & Randall, 1995 : MUFS 33520, 1 specimen, 187 mm SL, Mutrah fish market, Oman, 4 Oct., 2010 ; MUFS 33557, 1 specimen, 151 mm SL, Madrakah, Oman, 6 Oct., 2010 ; MUFS 33663, 1 specimen, 208 mm SL, Madrakah, Oman, 8 Oct., 2010.
- 60) *Pomadasys argenteus* (Forsskål, 1775) : MUFS 33621, 33638-33639, 3 specimens, 161-178 mm SL, Mutrah fish market, Oman, 9 Oct., 2010.

- 61) *Pomadasys commersonii* (Lacepède, 1801) : MUFS 33637, 1 specimen, 221 mm SL, Mutrah fish market, Oman 9 Oct., 2010.
- 62) *Pomadasys kaakan* (Cuvier, 1830) : MUFS 33786, 1 specimen, 102 mm SL, Mutrah fish market, Oman, 13 Oct., 2010.
- 63) *Pomadasys maculatus* (Bloch, 1793) : MUFS 33677 (only for tissue sample), 1 specimen, 60 mm SL, Oman, 2010.
- 64) *Pomadasys olivaceus* (Day, 1875) : MUFS 33684, 1 specimen, 140 mm SL, Mutrah fish market, Oman, 10 Oct., 2010.
- 65) *Pomadasys punctulatus* (Rüppell, 1838) : MUFS 33681-33683, 3 specimens, 141-147 mm SL, Mutrah fish market, Oman, 10 Oct., 2010 ; MUFS 33787-33788, 2 specimens, 155-207 mm SL, Mutrah fish market, Oman, 13 Oct., 2010 ; MUFS 33556, 1 specimen, 112 mm SL, Madrakah, Oman, 6 Oct., 2010 ; MUFS 33664, 1 specimen, 227 mm SL, Madrakah, Oman, 8 Oct., 2010 ; MUFS 33779, 1 specimen, 127 mm SL, Madrakah, Oman, 7 Oct., 2010.
- 66) *Pomadasys stridens* (Forsskål, 1775) : MUFS 33678-33680, 3 specimens, 122-129 mm SL, Mutrah fish market, Oman, 10 Oct., 2010.
- 67) *Pomadasys taeniatus* McKay & Randall, 1995 : MUFS 33675 (only for tissue sample), 1 specimen, 165 mm SL, Salalah, Oman, 2010.
- Nemipteridae** (Russell, 1990 ; Randall, 1995)
- 68) *Nemipterus bipunctatus* (Valenciennes, 1830) : MUFS 33669, 33672-33673, 3 specimens, 209-216 mm SL, Mutrah fish market, Oman, 10 Oct., 2010.
- 69) *Nemipterus japonicus* (Bloch, 1791) : MUFS 33674, 1 specimen, 167 mm SL, Mutrah fish market, Oman, 10 Oct., 2010 ; MUFS 33750-33753, 4 specimens, 120-156 mm SL, Mutrah fish market, Oman, 12 Oct., 2010.
- 70) *Parasclopsis aspinosa* (Rao & Rao, 1981) : MUFS 33754-33755, 2 specimens, 155-159 mm SL, Mutrah fish market, Oman, 12 Oct., 2010.
- 71) *Scolopsis bimaculata* Rüppell, 1828 : MUFS 33731-33732, 2 specimens, 148-182 mm SL, Mutrah fish market, Oman, 10 Oct., 2010.
- 72) *Scolopsis ghanam* (Forsskål, 1775) : MUFS 33733, 1 specimen, 158 mm SL, Mutrah fish market, Oman, 10 Oct., 2010.
- 73) *Scolopsis taeniatus* (Cuvier, 1830) : MUFS 33729-33630, 2 specimens, 177-185 mm SL, Mutrah fish market, Oman, 10 Oct., 2010.
- 74) *Scolopsis vosmeri* (Bloch, 1792) : MUFS 33734, 1 specimen, 142 mm SL, Mutrah fish market,

Oman, 10 Oct., 2010.

Lethrinidae (Carpenter & Allen, 1989 ; Randall, 1995)

- 75) *Lethrinus borbonicus* Valenciennes, 1830 : MUFS 33703, 1 specimen, 206 mm SL, Mutrah fish market, Oman, 10 Oct., 2010.
 76) *Lethrinus lentjan* (Lacepède, 1802) : MUFS 33702, 1 specimen, 240.9 mm SL, Mutrah fish market, Oman, 10 Oct., 2010.
 77) *Lethrinus microdon* Valenciennes, 1830 : MUFS 33704, 1 specimen, 237 mm SL, Mutrah fish market, Oman, 10 Oct., 2010.
 78) *Lethrinus nebulosus* (Forsskål, 1775) : MUFS P-Oman-00016 (Fig. 6), 1 specimen, ca. 40 cm SL, Madrakah, Oman, 7 Oct., 2010.



Fig. 6. *Lethrinus nebulosus*, MUFS P-Oman-00016, ca. 40 cm SL, Madrakah, Oman, 7 Oct., 2010.

- 79) *Lethrinus obsoletus* (Forsskål, 1775) : MUFS 33655, 1 specimen, 154 mm SL, Mutrah fish market, Oman, 9 Oct., 2010.

Sparidae (Bauchot & Smith, 1986 ; Randall, 1995 ; Iwatsuki & Heemstra, 2010)

- 80) *Acanthopagrus herda* (Forsskål, 1775) : MUFS 33543, 1 specimen, 284 mm SL, Mutrah fish market, Oman, 5 Oct., 2010 ; MUFS 33634-33636, 3 specimens 166-169 mm SL, Mutrah fish market, Oman, 9 Oct., 2010.

- 81) *Acanthopagrus bifasciatus* (Forsskål, 1775) : MUFS 33628-33629, 2 specimens, 159-211 mm SL, Mutrah fish market, Oman, 9 Oct., 2010.

- 82) *Acanthopagrus catenula* Iwatsuki & Heemstra, 2011 : MUFS 33573-33575 (Fig. 7), 3 specimens, 231-255 mm SL, Madrakah, Oman 6 Oct., 2010. Remarks. This species was reviewed by Iwatsuki & Heemstra (2011) and Jawad *et al.* (2012). The species is a member of the *Acanthopagrus bifasciatus* similar species complex although *A. bifasciatus* has long been a single valid species from Western Indian Ocean.



Fig. 7. *Acanthopagrus catenula* : MUFS 33573, 255 mm SL, Madrakah, Oman 6 Oct., 2010.

- 83) *Acanthopagrus omanensis* Iwatsuki & Heemstra, 2010 : MUFS 33550-33554, 5 specimens, 106-116 mm SL, Madrakah, Oman, 6 Oct., 2010, tide-pools ; MUFS 33586-33602, 16 specimens, 94-149 mm SL, Madrakah, Oman, 7 Oct., 2010, tide-pools. Remarks. This species was recently described as a new to science from Duqm, Oman, and this report is the second record from Madrakah, Oman. However, this species has been well known to local fishermen from Salala, Madrakar, and Duqm, southern Oman.
 84) *Argyrops spinifer* (Forsskål, 1775) : MUFS 33537-33539, 3 specimens, 186-259 mm SL, Mutrah fish market, Oman 5 Oct., 2010 ; MUFS 33610-33613, 4 specimens, 172-201 mm SL, Mutrah fish market, Oman, 9 Oct., 2010 ; MUFS 33540-33541, 2 specimens, 222-257 mm SL, Mutrah fish market, Oman, 5 Oct., 2010 ; MUFS 33743-33749, 7 specimens, 201-229 mm SL, Mutrah fish market, Oman, 12 Oct., 2010.
 85) *Boops lineatus* (Boulenger, 1892) : MUFS 33501, 1 specimen, 149 mm SL, Mutrah fish market, Oman, 4 Oct., 2010.
 86) *Cheimerius nufar* (Valenciennes, 1830) : MUFS 33542, 1 specimen, 279 mm SL, Mutrah fish market, Oman 5 Oct., 2010
 87) *Crenidens crenidens indicus* Day, 1873 : MUFS 33511-33512, 2 specimens 170-174 mm SL, Mutrah fish market, Oman 4 Oct., 2010 ; MUFS 33616, 1 specimen, 217 mm SL, Mutrah fish market, Oman, 9 Oct., 2010 ; MUFS 33630-33633, 4 specimens, 148-166 mm SL, Mutrah fish market, Oman 9 Oct., 2010. Remarks. Bauchot & Smith (1986) admitted the two subspecies in *Crenidens* : *Crenidens crenidens crenidens* and *Crenidens crenidens indicus*. The latter can be differed from the former in having a blackish spot dorsally in pectoral-fin axil. Further

- study is needed for a review of *Crenidens*.
- 88) *Diplodus capensis* (Smith, 1844) : MUFS 33507-33510, 4 specimens, 144.7-154.9 mm SL, Mutrah fish market, Oman, 4 Oct., 2010 ; MUFS 33614-33615, 2 specimens, 159-215 mm SL, Mutrah fish market, Oman, 9 Oct., 2010 ; MUFS 33555, 1 specimen, 211 mm SL, Madrakah, Oman, 6 Oct., 2010 ; MUFS 33604, 33662-33663, 3 specimens, 190-223 mm SL, Madrakah, Oman, 7 Oct., 2010. Remarks. Some specimens from Madrakah, southern Oman had several scattered or irregular yellow small spots on the body, while specimens from Mutrah from Gulf of Oman have no such yellow spots on the body. However, counting and proportional measurements are identical between them, being highly justified as geographic variation of the species.
- 89) *Diplodus omanensis* Bauchot & Bianchi, 1984 : MUFS 33661, 1 specimen, 294 mm SL, Madrakah, Oman, 7 Oct., 2010.
- 90) *Lithognathus mormyrus* (Linnaeus, 1758) : MUFS 33532-33536, 5 specimens, 174-192 mm SL, Mutrah fish market, Oman 5 Oct., 2010.
- 91) *Pagellus affinis* Boulenger, 1888 : MUFS 33502-33506, 5 specimens, 188-232 mm SL, Mutrah fish market, Oman 4 Oct., 2010 ; MUFS 33668, 33670-33671, 3 specimens, 203-225 mm SL, Mutrah fish market, Oman, 10 Oct., 2010.
- 92) *Rhabdosargus sarba* (Forsskål, 1775) : MUFS 33513-33514, 2 specimens, 197-203 mm SL, Mutrah fish market, Oman, 4 Oct., 2010 ; MUFS 33564-33566, 3 specimens, 170-238 mm SL, Madrakah, Oman 6 Oct., 2010.
- 93) *Sparidentex belaywesi* (Hora & Misra, 1943) : MUFS 33546, 1 specimen, 435 mm SL, Madrakah, Oman, 5 Oct., 2010. Remarks. Diagnosed with no molariform teeth. This specimen is identified as *Sparidentex belaywesi* as the second record and a valid species after the original description (Hora & Misra, 1943), but Iwatsuki & Carpenter (2009) commented that this genus was needed for further review. The review of the genus from the Indian Ocean will be soon published by the two authors.
- Sciaenidae** (Lal-Mohan 1984 ; Randall 1995 ; Sasaki, 2001)
- 94) *Argyrosomus heinii* (Steindachner, 1902) : MUFS 33758, 1 specimen, 205 mm SL, Mutrah fish market, Oman, 12 Oct., 2010.
- 95) *Argyrosomus hololepidotus* (Lacepède, 1801) : MUFS 33548-33549, 2 specimens, 500 mm SL, Madrakah, Oman 5 Oct., 2010 ; MUFS 33735, 1

specimen, 305 mm SL, Madrakah, Oman, 7 Oct., 2010.

- 96) *Johnius majan* : MUFS 33607 (Fig. 8), 33727-33728, 3 specimens, 145-158 mm SL, Madrakah, Oman 7 Oct., 2010. Remarks. Recently, this species was justified as a new to science and was described by Iwatsuki *et al.* (2012 ; See noted in details in Discussion below).



Fig. 8. *Johnius majan* : MUFS 33607, 33727, 145 mm SL, Madrakah, Oman 7 Oct., 2010.

- 97) *Otolithes cuvieri* Trewavas, 1974 : MUFS 33608, 33736, 2 specimens, 209-215 mm SL, Madrakah, Oman, 7 Oct., 2010.
- 98) *Otolithes ruber* (Bloch & Schneider, 1801) : MUFS 33737-33738, 2 specimens, 155-187 mm SL, Madrakah, Oman, 7 Oct., 2010.
- Mullidae** (Randall, 1995)
- 99) *Mulloidichthys flavolineatus* (Lacepède, 1801) : MUFS 33719, 1 specimen, 161 mm SL, Mutrah fish market, Oman, 11 Oct., 2010.
- 100) *Parupeneus cyclostomus* (Lacepède, 1801) : MUFS 33647, 1 specimen, 136 mm SL, Mutrah fish market, Oman, 9 Oct., 2010 ; MUFS 33725-33726, 2 specimens, 156-186 mm SL, Mutrah fish market, Oman, 11 Oct., 2010.
- 101) *Parupeneus macronemus* (Lacepède, 1801) : MUFS 33654, 1 specimen, 212 mm SL, Mutrah fish market, Oman, 9 Oct., 2010.
- Pempheridae** (Mooi, 2001 ; Randall, 1995)
- 102) *Pempheris vanicolensis* Cuvier, 1831 : MUFS 33643, 1 specimen, 139 mm SL, Mutrah fish market, Oman, 9 Oct., 2010 ; MUFS 33716-33718, 3 specimens, 103-119 mm SL, Mutrah fish market, Oman, 11 Oct., 2010.
- Monodactylidae** (Randall, 1995)
- 103) *Monodactylus argenteus* (Linnaeus, 1758) : MUFS 33656, 1 specimen, 128 mm SL, Mutrah fish market, Oman, 9 Oct., 2010.
- Kyphosidae** (Randall, 1995)
- 104) *Kyphosus vaigiensis* (Quoy & Gaimard, 1825) :

MUFS 33708-33709, 2 specimens, 185-211 mm SL, Mutrah fish market, Oman, 10 Oct., 2010.

Chaetodontidae (Randall, 1995)

- 105) *Chaetodon gardineri* Norman, 1939 : MUFS 33722, 1 specimen, 132 mm SL, Mutrah fish market, Oman, 11 Oct., 2010
 106) *Chaetodon melapterus* Guichenot, 1863 : MUFS 33530, 1 specimen, 114 mm SL, Mutrah fish market, Oman, 4 Oct., 2010.
 107) *Chaetodon nigropunctatus* Sauvage, 1880 : MUFS 33526-33529, 4 specimens, 73-98 mm SL, Mutrah fish market, Oman, 4 Oct., 2010.

Teraponidae (Randall, 1995)

- 108) *Terapon jarbua* (Forsskål, 1775) : MUFS 33739-33740, 2 specimens, 168-192 mm SL, Madrakah, Oman, 6 Oct., 2010.

Kuhliidae (Randall, 1995)

- 109) *Kuhlia mugil* (Forster, 1801) : MUFS 33580-33582, 33741-33742, 5 specimens, 68-111 mm SL, Madrakah, Oman, 6 Oct., 2010.

Pomacentridae (Randall, 1995)

- 110) *Abudefduf sordidus* (Forsskål, 1775) : MUFS 33577-33758, 2 specimens, 76-128 mm SL, Madrakah, Oman, 6 Oct., 2010.
 111) *Abudefduf vaigiensis* (Quoy & Gaimard, 1825) : MUFS P-Oman-00017 (Plate 2E), 1 specimen, ca. 15 cm SL, Mutrah fish market, Oman, 11 Oct., 2010.

Labridae (Randall, 1995)

- 112) *Cheilinus lunulatus* (Forsskål, 1775) : MUFS 33692, 1 specimen, 161 mm SL, Mutrah fish market, Oman, 10 Oct., 2010.
 113) *Coris formosa* (Bennett, 1830) : MUFS P-Oman-000018 (Plate 2F), 1 specimen, ca. 50 cm SL, Mutrah fish market, Oman, 14 Oct., 2010.
 114) *Coris nigrotaenia* Mee & Hare, 1995 : MUFS 33583, 1 specimen, 170 mm SL, Madrakah, Oman, 6 Oct., 2010.

Scaridae (Randall, 1995)

- 115) *Scarus persicus* Randall & Bruce, 1983 : MUFS 33693, 1 specimen, 206 mm SL, Mutrah fish market, Oman, 10 Oct., 2010.

Opistognathidae (Randall, 1995)

- 116) *Opistognathus muscatensis* Boulenger, 1888 : MUFS 33627, 1 specimen, 262 mm SL, Mutrah fish market, Oman, 9 Oct., 2010.

Pinguipedidae (Randall, 1995)

- 117) *Parapercis alboguttata* (Günther, 1872) : MUFS 33720, 1 specimen, 156 mm SL, Mutrah fish market, Oman, 11 Oct., 2010.

Cynoglossidae (Randall, 1995)

- 118) *Cynoglossus arel* (Bloch & Schneider, 1801) :

MUFS P-Oman-00019 (Plate 2G), 1 specimen, ca. 25 cm SL, Mutrah fish market, Oman, 14 Oct., 2010.

Sphyraenidae (Randall, 1995)

- 119) *Sphyraena putnamiae* Jordan & Seale, 1905 : MUFS P-Oman-00020 (Plate 2H), 1 specimen, ca. 80 cm SL, Mutrah fish market, Oman, 14 Oct., 2010.
 120) *Sphyraena geni* Klunzinger, 1870 : MUFS P-Oman-00021 (Plate 2I), 1 specimen, ca. 80 cm SL, Mutrah fish market, Oman, 12 Oct., 2010.

Trichiuridae (Nakamura & Parin, 1993 ; Randall, 1995)

- 121) *Trichiurus lepturus* Linnaeus, 1758 : MUFS P-Oman-00022 (Plate 2J), 1 specimen, ca. 120 cm TL, Mutrah fish market, Oman, 14 Oct., 2010.

Scombridae (Randall, 1995 ; Collette, 2001)

- 122) *Rastrelliger kanagurta* (Cuvier, 1816) : MUFS 33653, 1 specimen, 187 mm SL, Mutrah fish market, Oman, 9 Oct., 2010.
 123) *Scomberomorus commerson* (Lacepède, 1800) : MUFS P-Oman-00023 (Plate 3A), 1 specimen, ca. 120 cm SL, Mutrah fish market, Oman, 14 Oct., 2010.

- 124) *Thunnus obesus* (Lowe, 1839) : MUFS P-Oman-00024 (Plate 3B), 1 specimen, ca. 80 cm SL, Mutrah fish market, Oman, 14 Oct., 2010.

- 125) *Thunnus tonggol* (Bleeker, 1851) : MUFS P-Oman-00025 (Plate 3C), 1 specimen, ca. 80 cm SL, Mutrah fish market, Oman, 14 Oct., 2010.

Xiphiidae (Randall, 1995)

- 126) *Istiophorus platypterus* (Shaw, 1792) : MUFS P-Oman-00026 (Plate 3D), 1 specimen, ca. 300 cm SL, Mutrah fish market, Oman, 14 Oct., 2010.

Drepanidae (Randall, 1995)

- 127) *Drepane longimana* (Bloch & Schneider, 1801) : MUFS P-Oman-00027 (Plate 3E), 1 specimen, ca. 35 cm SL, Mutrah fish market, Oman, 13 Oct., 2010.

Ephippidae (Randall, 1995)

- 128) *Platax batavianus* Cuvier, 1831 : MUFS P-Oman-00028 (Plate 3F), 1 specimen, ca. 50 cm SL, Mutrah fish market, Oman, 13 Oct., 2010.

Siganidae (Woodland, 1990 ; Randall, 1995)

- 129) *Siganus canaliculatus* (Park, 1797) : MUFS 33688, 1 specimen, 259 mm SL, Mutrah fish market, Oman, 10 Oct., 2010 ; MUFS 33687, 1 specimen, 232 mm SL, Mutrah fish market, Oman, 10 Oct., 2010.

- 130) *Siganus javus* (Linnaeus, 1766) : MUFS 33689, 1 specimen, 289 mm SL, Mutrah fish market, Oman, 10 Oct., 2010.

Acanthuridae (Randall, 1995)

- 131) *Acanthurus mata* (Cuvier, 1829) : MUFS 33584
(only for tissue sample), 1 specimen, 505 mm SL, Madrakah, Oman, 6 Oct., 2010 ; MUFS 33690, 1 specimen, 237 mm SL, Mutrah fish market, Oman, 10 Oct., 2010.
- 132) *Acanthurus sohal* (Forsskål, 1775) : MUFS 33691, 1 specimen, 273 mm SL, Mutrah fish market, Oman, 10 Oct., 2010.

Discussion

132 species of 45 families were confirmed in Omani fishes collected in the vicinity of Mutrah, Gulf of Oman and Madrakah, southern Oman through 3 to 13 October 2010 as the first step except cartilaginous fishes in this time. Furthermore, the coastal and commercial fish collections were mainly collected at fish markets.

Five new records from Oman were confirmed with several second records from Oman and newly described species of sciaenid fish was confirmed : *Albula oligolepis* (the Albulidae, photo basis), *Ostichthys acanthurinus* (the Holocentridae), *Gerres infasciatus* (the Gerreidae), and *G. macracanthus* (the Gerreidae) as the first record from Oman. *Acanthopagrus catenura* (the Sparidae), *A. omanensis* (the Sparidae), and *Sparidentex belaywesi* (the Sparidae) are the second record after the original description or after the first record from. *Johnius majan* (the Sciaenidae) was an undescribed species with a black spot of upper axil of pectoral fin (Iwatsuki *et al.* 2012), diagnosed with the following characters : black axillary spot on upper pectoral fin base ; dorsal soft rays 29-32 ; anal soft rays 8 ; scales above lateral line 6, below 11 ; eye diameter 22.9-28.9% HL ; interorbital width 32.0-38.0% HL ; gill rakers 5-6 + 15-18 = 21-24 ; no mental barbel ; last well developed pleural rib on 7th vertebra ; swim bladder appendages 11 ; vertebrae 10 + 14 = 24. Ten valid species have been admitted from western Indian Ocean (Lal-Mohan, 1984), but the character of such a black axil spot of upper pectoral fin base has never been known under *Johnius* species even from the Indo-West Pacific (Iwatsuki *et al.* 2012).

According to Al-Jufaili *et al.* (2010), *Albula oligolepis* and *Ostichthys acanthurinus* are not listed in their Omani fauna list, but in the latter species, Randall *et al.* (1982) already reported this species from Mutrah, Oman. *Albula oligolepis* was recently described by Hidaka *et al.* (2008) as a new to science. Unfortunately the photographed specimens (Fig. 1) were not purchased. However, Hidaka (pers. comm.)

could kindly identified the photographed specimens as *Albula oligolepis* by yellow spots on the base of pectoral and pelvic fins, and having ca. 62 pored lateral line scales, plus a pointed lower jaw's condition by confirmation of the first author.

Gerres infasciatus and *G. macracanthus* are not recorded in both the reports (Randall, 1995 ; Al-Jufaili *et al.* 2010), faunal research in this time could make us notice the two species. In *Gerres infasciatus*, Al-Abdessalaam (1995) reported *Gerres filamentosus* from Oman but his color plate is identified as *G. infasciatus*. We did not see *G. infasciatus* at all during the sampling period in Oman. This is the first record from Oman. As an another gerreid species, *G. longirostris* is recorded as a correct valid name although this species has long been identified as *G. acinaces* (Bleeker), which is a junior synonym of *G. longirostris*, reported by Iwatsuki *et al.* (2001). Furthermore, *G. macracanthus* is collected and also justified as the first record from Oman.

Acanthopagrus catenura (Fig. 7) has black upper margin of the dorsal fin-rays, while true *A. bifasciatus* does not have such a black color character. The species is a member of the *A. bifasciatus* species complex although *A. bifasciatus* has long been a single valid species from Western Indian Ocean. This species was reviewed by Iwatsuki & Heemstra (2011) and Jawad *et al.* (2012).

Petrus belaywesi Hora & Misra, 1943 has long been unclear taxonomic identity under the Sparidae after the original description but Iwatsuki & Carpenter (2009) commented that the species belongs to the genus *Sparidentex*, not *Petrus*. The first author consider that the species could be a valid species in *Sparidentex*, it being identified as *Sparidentex belaywesi* although only a holotype is known. In this time, the first author collected the species as the second record after the original description (Hora & Misra, 1943). Iwatsuki & Carpenter (2006) commented that this genus was needed for further review and the review could be soon published by them (to be accepted).

In a landing port of Madrakah, southern Oman, we saw a lot of catches of *Lethrinus nebulosus* (Fig. 6) and *Pristipomoides filamentosus* (Fig. 9). Such species were captured by hand & line of small boats at a depth of 30-60 m in probably sandy bottom of the vicinity of rock shore. The two species were so abundant there, sizes being in larger specimens, 50-80 cm TL and 60-120 cm TL, respectively. The total catches of one averaged small boat (7-10 m length, 4-5 fishermen) was presumably up to a 500-1,000 kg catches

per day, such being transported to be sold at Dubai, UAE or Muscat, Oman. The resources seem to be unbelievable abundant. Such rich resources must be protected under some fisheries management for future.



Fig. 9. *Pristipomoides filamentosus*, ca. 80-120 cm TL, Madrakah, Oman, 7 Oct., 2010.

In order to clear up and understand the correct Omani fish diversity, we consider that such fish list with information of commercial priority of each species should be examined at each family as the second step according to recent taxonomical information and the catalogued collection for all known and/or recorded specimens from Oman. All known fish accounting information from Oman could be better for us to be compiled as one fish book near future.

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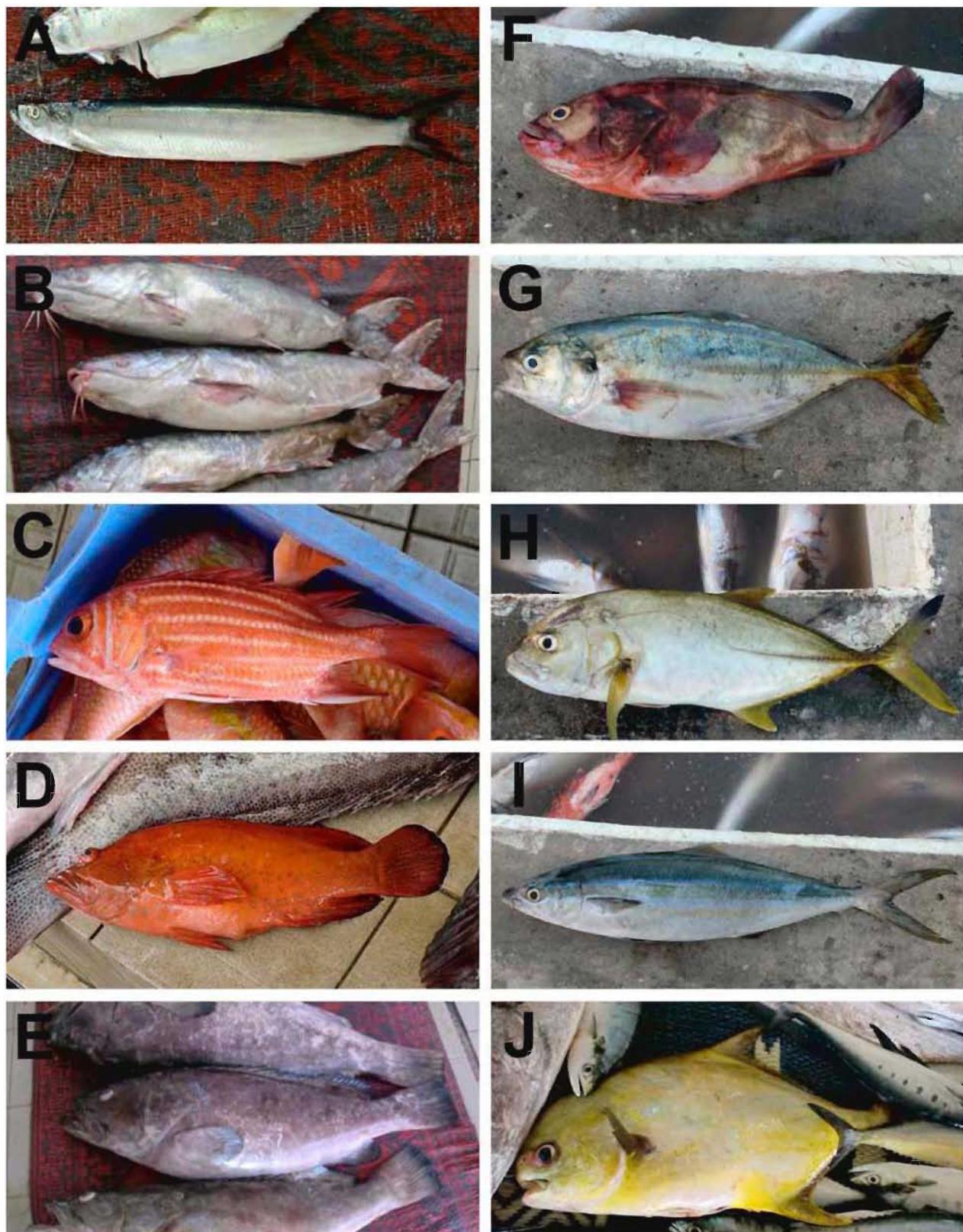


Plate 1. A) *Chirocentrus nudus*, ca. 50 cm SL, B) *Netuma thalassina*, ca. 100 cm SL, C) *Sargocentron rubrum*, ca. 150 mm SL, D) *Cephalopholis hemistictos*, ca. 20 cm SL, E) *Epinephelus poecilonotus*, ca. 60 cm SL, F) *Epinephelus retouti*, ca. 25 cm SL, G) *Alepes djedaba*, ca. 20 cm SL, H) *Caranx heberi*, ca. 30 cm SL, I) *Elagatis bipinnulata*, ca. 40 cm SL, J) *Trachinotus africanus*, ca. 60 cm SL.



Plate 2. A) *Trachinotus mookalee*, ca. 30 cm SL, B) *Uraspis helvola*, ca. 20 cm SL, C) *Plectorhinchus flavomaculatus*, ca. 40 cm SL, D) *Plectorhinchus gaterinus*, ca. 40 cm SL, E) *Abudefduf vaigiensis*, ca. 15 cm SL, F) *Coris formosa*, ca. 50 cm SL, G) *Cynoglossus arel*, ca. 25 cm SL, H) *Sphyraena putnamiae*, ca. 80 cm SL, I) *Sphyraena qeni*, ca. 80 cm SL, J) *Trichiurus lepturus*, ca. 120 cm TL.

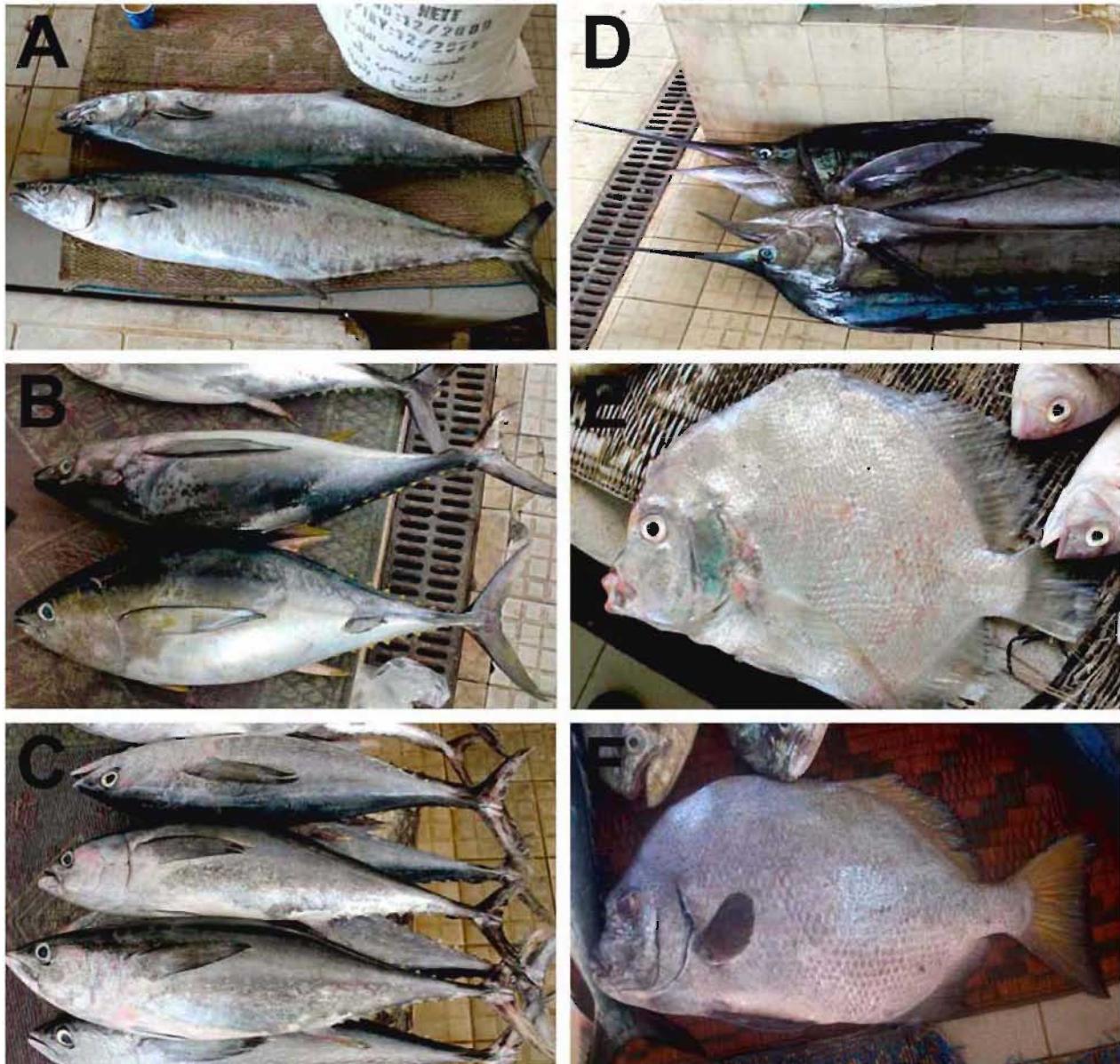


Plate 3. A) *Scomberomorus commerson*, ca. 120 cm SL, B) *Thunnus obesus*, ca. 80 cm SL, C) *Thunnus tonggol*, ca. 80 cm SL, D) *Istiophorus platypterus*, ca. 300 cm SL, E) *Drepane longimana*, ca. 35 cm SL, F) *Platax batavianus*, ca. 50 cm SL.

オマーンのマトラおよびマドラカ地方 から確認された魚類のリスト(2010年 10月3~13日)

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要 約

2010年10月3日から13日の11日間にかけて、オマーンのマトラおよびマドラカ地方の魚類調査を行なった。サンプリングは、主に両地域の魚市場で水揚げされた魚類の購入や著者による釣りによって標本の採集を行なった。その後、標本に基づき正確な同定作業を行なった。標本のない個体は魚市場で撮影した写真に基づき同定した。その結果、本研究により45科132種の魚類が確認された。そのうち、*Albula oligolepis* (ソトイワシ科), *Ostichthys acanthurhinus* (イットウダイ科), *Gerres infasciatus* (クロサギ科), *G. macracanthus* (クロサギ科)、および *Acanthopagrus catenura* (タイ科) の5種は、オマーン水域からの初記録であることが明らかとなった。また、タイ科魚類の *Sparidentex belaywesi* と *Acanthopagrus omanensis* の2種は、原記載後の標本に基づく本海域からの2番目の記録であった。オマーン南部のマドラカ地方沿岸域で採集された *Johnius majan* (ニベ科) は、胸鰭基部の上部に黒点をもつ、背鰭軟条数29-32、臀鰭軟条数8、側線上方鱗数6、および側線下方鱗数11であることなどの識別的特徴から、*Johnius majan* は未記載種であることが明らかとなり、最近第1, 2および5著者らにより新種記載された。