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Annotated checklist and type catalog of fish genera and species described from Taiwan

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Abstract

An annotated checklist of fish genera and species described from Taiwanese waters through 2009 is presented. It includes 20 genera and 336 species/subspecies in 99 families. Of these, 225 species/subspecies are currently recognized as valid and 111 are invalid, including 7 questionable species. The current status of each taxon, if different from that of the original description, is provided. Thus far, 41 primary freshwater and estuarine species/subspecies are considered as endemic and 55 marine species are found only around Taiwan. The type series collected from Taiwan are also listed based on the information provided in the original descriptions and from our investigation. It includes approximately 2217 specimens in 779 lots, including 242 holotypes and lectotypes, 5 neotypes, 35 lots of syntypes and 497 lots of paratypes and paralectotypes. There are still 19 species lacking primary types and 11 lots with at least 31 unknown secondary type specimens.

Key words: Taxonomy, Pisces, type specimen, endemic species, fish database

Introduction

The history of fish study in Taiwan began with Robert Swinhoe who collected a large number of animal specimens while traveling in Formosa [Taiwan] in 1858–1866 (Carrington, 1978). Swinhoe was appointed the first British consular official in Formosa in 1864 and was well known for discovering many Taiwanese birds and mammals. During his visit to Taiwan, Swinhoe also collected about 200 fish specimens which were purchased by the British Museum (Natural History) (BMNH). Albert Günther (1868) described the first 7 fishes of Taiwan on the basis of Swinhoe's collection.

In 1896–1897, the Japanese specialist Tsunasuke Tada collected numerous animal specimens and deposited those specimens in Japan. Subsequently, his fish specimens were sent to Stanford University where Jordan and Evermann (1902) reported 186 species from Taiwan, including 2 new genera and 17 new species, mainly on the basis of Tada's collection and partially on another collection made by Shinnosuke Matsubara.

In 1902 and 1905, the German entomologist Hans Sauter visited Taiwan and collected not only insects but also different animal specimens. His Taiwanese insect collection was well known in the world. Our investigation showed that his fish collections were purchased by the naturalist Alen Owston, and were sent to several museums including CM (now in FMNH), SU (now in CAS), USNM, NRM and BMNH. Jordan and Richardson (1909) reported 100 species in addition to Jordan and Evermann's (1902) list based on Sauter's collection, hence brought the number of fish species in Taiwan to 286 species. Regan (1908a, b) also described 10 new species based on Sauter's collection.

During 1900–1910, the research vessel U.S. Albatross collected fish specimens from the South China Sea. A total of 10 new species from near Taiwan were described based on this collection (Fowler, 1931, 1934, 1938).

Masamitsu Oshima, a zoologist of the government during the Japanese occupation in Taiwan, was the pioneer of freshwater fish study in Taiwan. Most of his studies on fishes were made by the Japanese specialists Yoneraro Kikuchi, Takeo Aoki and Matsuda Eiji, and by himself.

Oshima (1919) first recorded 76 freshwater fishes from Taiwan, including 7 new genera and 15 new species. Later, Oshima (1920a, b) recorded 59 freshwater fishes, including 4 new genera and 10 new species. Up until 1927, he described a total of 44 new fish species. Of them, 13 species are still valid, including the endemic salmon, *Salmo formosanus* [= *Oncorhynchus formosanus* (Jordan and Oshima, 1919)] and many other endemic species.

After Taiwan was liberated from Japan in 1945, Johnson T. F. Chen became the curator of the National Taiwan Museum. He and coauthors described 14 new fish species (Chen 1948, 1963; Chen and Liang 1948; Chen and Weng 1965, 1967). In the publication “A synopsis of the vertebrates of Taiwan” (Chen, 1956), he listed 870 fish species. Chen and Yu (1986) published an enlarged version and listed 2,252 fish species. T.-R. Chen (1959, 1960, 1964) described three new gobies. H.-T. Teng (1959a, b, c, d, e, 1962) studied the Chondrichthyes of Taiwan and described 10 new species. S.-C. Shen and coauthors described 36 new species in the past five decades. The book “Fishes of Taiwan” which was chiefly edited by Shen, included 2,028 fish species (Shen et al. 1993).

In the 1960's, Victor G. Springer visited Taiwan and collected many fish species from coral reef and tide pool fish species. On the basis of Springer's collection, 18 species have been described as new. Since the 1970's, John E. Randall and his coauthors have described at least 10 new species from Taiwan. S.-C. Lee, K.-T. Shao, H.-K. Mok, C.-S. Tzeng, J.-P. Chen, I.-S. Chen and their coauthors described about 80 new fish species in the last three decades. Their efforts largely increased our knowledge of Taiwanese fish fauna.

This report provides information on all genera and species that were described from Taiwan. The area includes Taiwan, Pescadores Islands in Taiwan Strait, Dongsha Islands and Nansha Islands in the South China Sea. In order to gather all the information, we (1) checked most of the publications mentioned above; (2) checked Eschmeyer (1998); and (3) searched databases including Taiwan Fish Database (Shao, 2010), Catalog of Fishes (Fricke and Eschmeyer, 2010), FishBase (Froese and Pauly, 2010), as well as any websites of collections to locate type specimens collected from Taiwan. In the checklist, the original names of fish species are used along with the information on their current status which is based on various sources and our investigation.

The purpose of this paper is to present a list of all known genera and species described from Taiwan and to verify some questionable species. These species are defined as any type series which was collected from the waters of Taiwan, including holotype, paratype, syntype, lectotype, paralectotype, and neotype. Some species which are currently in press are not included herein.

Materials and Methods

The systematics of families, with family number after family name, followed Nelson (2006). The status of species followed Eschmeyer (1998) and the current website update of “Catalog of Fishes” (Eschmeyer and Fricke, 2010) except for other indications. The current status of a nominal taxon, if different from that in the original description, is listed after the species name and followed by “=.” Citations are not provided for senior synonyms of invalid species. Detailed information on type specimens collected from Taiwan (if applicable) was included. The original descriptions were reviewed to determine the type series and verify the information. The information on each species/subspecies is provided in the following format: Genus, species, authorship, year of publication, page where description starts, and citation of figure(s). Only the information on those specimens collected from Taiwan is provided and in the following format: institution code, catalog number, (sex, number of specimen and body size), locality (in original description), date, and collector (if applicable). Standard length (SL) expressed in millimeters is used throughout, except for other indications: total length (TL), head length (HL) and disk width (DW) are also expressed in millimeters. Any information, correction or current locality names provided by us are put in “[].” Institution abbreviations followed Fricke and Eschmeyer (2010), with the exceptions of University of Guam (UTIO-F), National Museum of Marine Science and Technology, Taiwan (NMSMP), National Taiwan Museum, Taipei (NTMP, also TMF) and Watanabe Ichthyological Research Institute, Japan (WIRI).

Results

Table 1 shows all nominal species and their current status. There are a total of 336 species/ subspecies in 99 families that have been described on the basis of at least one type specimen collected from Taiwan, including neotypes. There are 225 species in 79 families still valid and 111 species that are invalid, including 7 questionable species. Among the total number, 41 species are endemic species and are only found in estuary and freshwater habitat in Taiwan (marked as “VE” in the status in Table 1). There are also 55 marine species found only in Taiwanese waters (marked as “VT” in the status in Table 1).

TABLE 1. List of all nominal species from Taiwan and their current status and valid name. X= invalid, VE= endemic species, VT= only found in Taiwan, ?= questionable.

Original name	Status	Valid name
<i>abacopus</i> , <i>Glossogobius</i> Jordan & Richardson 1909	X	<i>Glossogobius biocellatus</i> (Valenciennes 1837)
<i>acuticeps</i> , <i>Salanx</i> Regan 1908	VE	<i>Salanx acuticeps</i> Regan 1908
<i>adiposalis</i> , <i>Pseudobagrus</i> Oshima 1919	VE	<i>Pseudobagrus adiposalis</i> Oshima, 1919
<i>aeolus</i> , <i>Sillago</i> Jordan & Evermann 1902	V	<i>Sillago aeolus</i> Jordan & Evermann 1902
<i>akoensis</i> , <i>Cultricus</i> Oshima 1920	X	<i>Hemiculter leucisculus</i> (Basilewsky 1855)
<i>albius</i> , <i>Cristatogobius</i> Chen 1959	V	<i>Cristatogobius albius</i> Chen 1959
<i>albus</i> , <i>Branchiostegus</i> Dooley 1978	V	<i>Branchiostegus albus</i> Dooley 1978
<i>alii</i> , <i>Squaliolus</i> Teng 1959	V	<i>Squaliolus aliae</i> Teng 1959
<i>alleni</i> , <i>Chromis</i> Randall, Ida & Moyer 1981	V	<i>Chromis alleni</i> Randall, Ida & Moyer 1981
<i>alticorpus</i> , <i>Microphysogobio brevirostris</i> Banareescu & Nalbant 1968	VE	<i>Microphysogobio alticorpus</i> Banareescu & Nalbant 1968
<i>alticorpus</i> , <i>Scaphiodontella</i> Oshima 1920	VE	<i>Onychostoma alticorpus</i> (Oshima 1920)
<i>ampluvinculus</i> , <i>Schismatogobius</i> Chen, Shao & Fang 1995	V	<i>Schismatogobius ampluvinculus</i> Chen, Shao & Fang 1995
<i>annularis</i> , <i>Brachirus</i> Fowler 1934	V	<i>Brachirus annularis</i> Fowler 1934
<i>anpinensis</i> , <i>Mugil</i> Oshima 1922	X	<i>Liza melinoptera</i> (Valenciennes 1836)
<i>aokii</i> , <i>Culter</i> Oshima 1919	X	<i>Chanodichthys erythropterus</i> (Basilewsky 1855)
<i>aphotistos</i> , <i>Ophichthus</i> McCosker & Chen 2000	VT	<i>Ophichthus aphotistos</i> McCosker & Chen 2000
<i>aureofasciatus</i> , <i>Pentapodus</i> Russell 2001	V	<i>Pentapodus aureofasciatus</i> Russell 2001
<i>aurora</i> , <i>Nemipterus</i> Russell 1993	V	<i>Nemipterus aurora</i> Russell 1993
<i>banarescui</i> , <i>Squalidus</i> Chen & Chang 2007	VE	<i>Squalidus banarescui</i> Chen & Chang 2007
<i>barbatulus</i> , <i>Gymnostomus</i> Pellegrin 1908	V	<i>Onychostoma barbatulum</i> (Pellegrin 1908)
<i>barbatus</i> , <i>Centrophorus armatus</i> Teng 1962	X	<i>Centrophorus atromarginatus</i> Garman 1913
<i>barbatus</i> , <i>Opsariichthys</i> Regan 1908	VE	<i>Candidia barbatus</i> (Regan 1908)
<i>bleekeri</i> , <i>Amblyeleotris</i> Chen, Shao & Chen 2006	VT	<i>Amblyeleotris bleekeri</i> Chen, Shao & Chen 2006
<i>bleekeri</i> , <i>Argyrops</i> Oshima 1927	V	<i>Argyrops bleekeri</i> Oshima 1927
<i>boehlkei</i> , <i>Barbuligobius</i> Lachner & McKinney 1974	V	<i>Barbuligobius boehlkei</i> Lachner & McKinney 1974
<i>brachistos</i> , <i>Protammodytes</i> Ida, Sirimontaporn & Monkolprasit 1994	V	<i>Protammodytes brachistos</i> Ida, Sirimontaporn & Monkolprasit 1994
<i>brachuata</i> , <i>Rhynchoconger</i> Chu & Chen 1958	X	<i>Rhynchoconger ectenurus</i> (Jordan & Richardson 1909)
<i>brevianalis</i> , <i>Pseudobagrus</i> Regan 1908	VE	<i>Pseudobagrus brevianalis brevianalis</i> Regan 1908
<i>brevicauda</i> , <i>Culter</i> Günther 1868	X	<i>Culter alburnus</i> Basilewsky 1855
<i>brevirostra</i> , <i>Hexatrygon</i> Shen 1986	X	<i>Hexatrygon bickelli</i> Heemstra & Smith 1980
<i>brevirostris</i> , <i>Pseudogobio</i> Günther 1868	VE	<i>Microphysogobio brevirostris</i> (Günther 1868)
<i>brevirostris</i> , <i>Rhynchoconger</i> Chen & Weng 1967	V	<i>Macrocephenchelys brevirostris</i> (Chen & Weng 1967)
<i>brevirostris</i> , <i>Suggrundus</i> Shao & Chen 1987	X	<i>Thysanophrys celebica</i> (Bleeker 1854)
<i>brunneolus</i> , <i>Pseudotolithus</i> Jordan & Richardson 1909	X	<i>Atrubucca nibe</i> (Jordan & Thompson 1911)
<i>burgessi</i> , <i>Etmopterus</i> Schaaf-Da Silva & Ebert 2006	VT	<i>Etmopterus burgessi</i> Schaaf-Da Silva & Ebert 2006
<i>caeruleopunctatus</i> , <i>Hemipteronotus</i> Yu 1968	X	<i>Iniistius verrens</i> (Jordan & Evermann 1902)
<i>candidianus</i> , <i>Ctenogobius</i> Regan 1908	VE	<i>Rhinogobius candidianus</i> (Regan 1908)
<i>capito</i> , <i>Centriscus</i> Oshima 1922	X	<i>Centriscus scutatus</i> Linnaeus 1758
<i>caudofasciata</i> , <i>Chromis</i> Shen & Chen 1978	X	<i>Chromis fumea</i> (Tanaka 1917)

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TABLE 1 (continued)

Original name	Status	Valid name
<i>caudoxanthorus</i> , <i>Centropyge</i> Shen 1973	X	<i>Centropyge fisheri</i> (Snyder 1904)
<i>cephalareticulatus</i> , <i>Chaetodontoplus</i> Shen & Lim 1975	V	<i>Chaetodontoplus cephalareticulatus</i> Shen & Lim 1975
<i>cheni</i> , <i>Apogon</i> Hayashi 1990	V	<i>Apogon cheni</i> Hayashi 1990
<i>cheni</i> , <i>Aseraggodes</i> Randall & Senou 2007	VT	<i>Aseraggodes cheni</i> Randall & Senou 2007
<i>cheni</i> , <i>Dasyatis</i> Teng 1962	X	<i>Dasyatis zugei</i> (Müller & Henle 1841)
<i>cheni</i> , <i>Enneapterygius</i> Wang, Shao & Shen 1996	V	<i>Enneapterygius cheni</i> Wang, Shao & Shen 1996
<i>cheni</i> , <i>Gobiobotia</i> Banarescu & Nalbant 1966	VE	<i>Gobiobotia cheni</i> Banarescu & Nalbant 1966
<i>cheni</i> , <i>Myrophis</i> Chen & Weng 1967	VT	<i>Myrophis cheni</i> Chen & Weng 1967
<i>cheni</i> , <i>Paramyxine</i> Shen & Tao 1975	VT	<i>Eptatretus cheni</i> (Shen & Tao 1975)
<i>chinensis</i> , <i>Eptatretus</i> Kuo & Mok 1994	V	<i>Eptatretus chinensis</i> Kuo & Mok 1994
<i>chioui</i> , <i>Xyrias</i> McCosker, Chen & Chen, 2009	VT	<i>Xyrias chioui</i> McCosker, Chen & Chen 2009
<i>chungchowensis</i> , <i>Plectranthias</i> Shen & Lin 1984	X	<i>Plectranthias whiteheadi</i> Randall 1980
<i>cingulatus</i> , <i>Coelorhynchus</i> Gilbert & Hubbs 1920	V	<i>Coelorinchus cingulatus</i> Gilbert & Hubbs 1920
<i>ctenosquamis</i> , <i>Spinirhombus</i> Oshima 1927	VT	<i>Pseudorhombus ctenosquamis</i> (Oshima 1927)
<i>davaoensis</i> , <i>Gnatholepis</i> Seale 1910	V	<i>Gnatholepis davaoensis</i> Seale 1910
<i>dayi</i> , <i>Decapterus</i> Wakiya 1924	X	<i>Decapterus russelli</i> (Rüppell 1830)
<i>delicatus</i> , <i>Rhinogobius</i> Chen & Shao 1996	VE	<i>Rhinogobius delicatus</i> Chen & Shao 1996
<i>delta</i> , <i>Chromis</i> Randall 1988	V	<i>Chromis delta</i> Randall 1988
<i>dictynna</i> , <i>Bodianus</i> Gomon 2006	V	<i>Bodianus dictynna</i> Gomon 2006
<i>diplasio</i> , <i>Cynoglossus</i> Jordan & Evermann 1902	X	<i>Cynoglossus bilineatus</i> (Lacepède 1802)
<i>dispilus</i> , <i>Archamia</i> Lachner 1951	X	<i>Archamia fucata</i> (Cantor 1849)
<i>dorsiocellatus</i> , <i>Chaetodon</i> Ahl 1923	X	<i>Chaetodon flavirostris</i> Günther 1874
<i>duospilus</i> , <i>Fusigobius</i> Hoesé & Reader 1985	V	<i>Fusigobius duospilus</i> Hoesé & Reader 1985
<i>ectenurus</i> , <i>Leptocephalus</i> Jordan & Richardson 1909	V	<i>Rhynchoconger ectenurus</i> (Jordan & Richardson 1909)
<i>elongatus</i> , <i>Spinibarbus</i> Oshima 1920	X	<i>Spinibarbus hollandi</i> Oshima 1919
<i>endoi</i> , <i>Lophiodes</i> Ho and Shao 2008	V	<i>Lophiodes endoi</i> Ho and Shao 2008
<i>eriomma</i> , <i>Scolopsis</i> Jordan & Richardson 1909	V	<i>Parascolopsis eriomma</i> (Jordan & Richardson 1909)
<i>erythrosoma</i> , <i>Enneapterygius</i> Shen & Wu 1994	VT	<i>Enneapterygius erythrosoma</i> Shen & Wu 1994
<i>evermanni</i> , <i>Ophichthus</i> Jordan & Richardson 1909	X	<i>Ophichthus lithinus</i> Jordan & Richardson 1908
<i>evides</i> , <i>Hemipteronotus</i> Jordan & Richardson 1909	X	<i>Iniistius baldwini</i> (Jordan & Evermann 1903)
<i>evolans</i> , <i>Zacco</i> Jordan & Evermann 1902	V	<i>Opsariichthys evolans</i> (Jordan and Evermann 1902)
<i>fallacincta</i> , <i>Priolepis</i> Winterbottom & Burrige 1992	V	<i>Priolepis fallacincta</i> Winterbottom & Burrige 1992
<i>fasciatus</i> , <i>Eleotris</i> Chen 1964	V	<i>Eleotris fasciatus</i> Chen 1964
<i>fasciatus</i> , <i>Ernogrammoides</i> Chen & Liang 1948	X	<i>Belonepterygion fasciolatum</i> (Ogilby 1889)
<i>faughni</i> , <i>Rastrelliger</i> Matsui 1967	V	<i>Rastrelliger faughni</i> Matsui 1967
<i>fernholmi</i> , <i>Paramyxine</i> Kuo, Huang & Mok 1994	VT	<i>Eptatretus fernholmi</i> (Kuo, Huang & Mok 1994)
<i>filamentosus</i> , <i>Macropodus</i> Oshima 1919	X	<i>Macropodus opercularis</i> (Linnaeus 1758)
<i>filipectoralis</i> , <i>Samariscus</i> Shen 1982	V	<i>Samariscus filipectoralis</i> Shen 1982
<i>flavipinnis</i> , <i>Uranoscopus</i> Kishimoto 1987	X	<i>Uranoscopus chinensis</i> Guichenot 1882
<i>flavoccipitis</i> , <i>Enneapterygius</i> Shen & Wu 1994	V	<i>Enneapterygius flavoccipitis</i> Shen & Wu 1994
<i>formosa</i> , <i>Cirrimaxilla</i> Chen & Shao 1995	V	<i>Cirrimaxilla formosa</i> Chen & Shao 1995

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TABLE 1 (continued)

Original name	Status	Valid name
<i>formosa</i> , <i>Ctenogobiops</i> Randall, Shao & Chen 2003	VT	<i>Ctenogobiops formosa</i> Randall, Shao & Chen 2003
<i>formosa</i> , <i>Myripristis</i> Randall & Greenfield 1996	VT	<i>Myripristis formosa</i> Randall & Greenfield 1996
<i>formosa</i> , <i>Squatina</i> Shen & Ting 1972	V	<i>Squatina formosa</i> Shen & Ting 1972
<i>formosa</i> , <i>Torpedo</i> Haas & Ebert 2006	VT	<i>Torpedo formosa</i> Haas & Ebert 2006
<i>formosae</i> , <i>Brotula</i> Jordan & Evermann 1902	X	<i>Brotula multibarbata</i> Temminck & Schlegel 1846
<i>formosae</i> , <i>Liza</i> Oshima 1922	V	<i>Valamugil formosae</i> (Oshima, 1922)
<i>formosae</i> , <i>Rasborinus</i> Oshima 1920	VE	<i>Metzia formosae</i> (Oshima 1920)
<i>formosana</i> , <i>Astronesthes</i> Liao, Chen and Shao 2006	VT	<i>Astronesthes formosana</i> Liao, Chen and Shao 2006
<i>formosana</i> , <i>Channa</i> Jordan & Evermann 1902	X	<i>Channa asiatica</i> (Linnaeus 1758)
<i>formosana</i> , <i>Homaloptera</i> Boulenger 1894	VE	<i>Hemimyzon formosanus</i> (Boulenger 1894)
<i>formosana</i> , <i>Kajikia</i> Hirasaka & Nakamura 1947	X	<i>Tetrapturus audax</i> (Philippi 1887)
<i>formosana</i> , <i>Mobula</i> Teng 1962	X	<i>Mobula tarapacana</i> (Philippi 1892)
<i>formosana</i> , <i>Myxine</i> Mok & Kuo 2001	VT	<i>Myxine formosana</i> Mok & Kuo 2001
<i>formosana</i> , <i>Paraplagusia</i> Oshima 1927	X	<i>Paraplagusia bilineata</i> (Bloch 1787)
<i>formosanum</i> , <i>Cephaloscyllium</i> Teng 1962	X	<i>Cephaloscyllium umbratile</i> Jordan & Fowler 1903
<i>formosanum</i> , <i>Cirrhoscyllium</i> Teng 1959	VT	<i>Cirrhoscyllium formosanum</i> Teng 1959
<i>formosanum</i> , <i>Homaloptera</i> Steindachner 1908	X	<i>Formosania lacustre</i> (Steindachner 1908)
<i>formosanus</i> , <i>Aulopus</i> Lee & Chao 1994	V	<i>Aulopus formosanus</i> Lee & Chao 1994
<i>formosanus</i> , <i>Callionymus</i> Fricke 1981	V	<i>Callionymus formosanus</i> Fricke 1981
<i>formosanus</i> , <i>Caranx</i> Jordan & Snyder 1908	X	<i>Carangoides coeruleopinnatus</i> (Rüppell 1830)
<i>formosanus</i> , <i>Cephalopholis</i> Tanaka 1911	X	<i>Cephalopholis miniata</i> (Forsskål 1775)
<i>formosanus</i> , <i>Coelorhynchus</i> Okamura 1963	V	<i>Coelorinchus formosanus</i> Okamura 1963
<i>formosanus</i> , <i>Gymnostomus</i> Regan 1908	X	<i>Acrossocheilus paradoxus</i> (Günther 1868)
<i>formosanus</i> , <i>Liobagrus</i> Regan 1908	VE	<i>Liobagrus formosanus</i> Regan, 1908
<i>formosanus</i> , <i>Misgurnus anguillicaudatus</i> Rendahl 1936	X	<i>Misgurnus anguillicaudatus</i> (Cantor 1842)
<i>formosanus</i> , <i>Oxyurichthys</i> Nichols 1958	V	<i>Oxyurichthys formosanus</i> Nichols 1958
<i>formosanus</i> , <i>Pomacentrus</i> Fowler & Bean 1922	X	<i>Teixeirichthys jordani</i> (Rutter 1897)
<i>formosanus</i> , <i>Pseudorhombus</i> Oshima 1927	X	<i>Pseudorhombus cinnamoneus</i> (Temminck & Schlegel 1846)
<i>formosanus</i> , <i>Rhinogobius</i> Oshima 1919	VE	<i>Rhinogobius formosanus</i> Oshima 1919
<i>formosanus</i> , <i>Salmo</i> Jordan & Oshima 1919	VE	<i>Oncorhynchus formosanus</i> (Jordan & Oshim 1919)
<i>formosanus</i> , <i>Scomberoides</i> Oshima 1924	X	<i>Scomberoides lysan</i> (Forsskål 1775)
<i>formosensis</i> , <i>Osopsaron</i> Kao & Shen 1985	V	<i>Osopsaron formosensis</i> Kao & Shen 1985
<i>formosensis</i> , <i>Rhinobatus</i> Norman 1926	V	<i>Rhinobatos formosensis</i> Norman 1926
<i>fortis</i> , <i>Eleotris</i> Tanaka 1912	X	<i>Eleotris oxycephala</i> Temminck & Schlegel 1845
<i>fuscopinna</i> , <i>Helcogramma</i> Holleman 1982	V	<i>Helcogramma fuscopinna</i> Holleman 1982
<i>fuscus</i> , <i>Leucisculus</i> Oshima 1920	X	<i>Mylopharyngodon piceus</i> (Richardson 1846)
<i>fuscigulus</i> , <i>Coelorinchus</i> Iwamoto, Ho & Shao 2009	VT	<i>Coelorinchus fuscigulus</i> Iwamoto, Ho & Shao 2009
<i>gigas</i> , <i>Rhinogobius</i> Aonuma & Chen 1996	VE	<i>Rhinogobius gigas</i> Aonuma & Chen 1996
<i>gilberti</i> , <i>Formosania</i> Oshima 1919	X	<i>Formosania lacustre</i> (Steindachner 1908)
<i>goni</i> , <i>Archamia</i> Chen & Shao 1993	X	<i>Archamia bleekeri</i> (Günther 1859)
<i>habena</i> , <i>Helcogramma</i> Williams & McCormick 1990	X	<i>Helcogramma inclinata</i> (Fowler 1946)

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TABLE 1 (continued)

Original name	Status	Valid name
<i>habereri</i> , <i>Proscyllium</i> Hilgendorf 1904	V	<i>Proscyllium habereri</i> Hilgendorf 1904
<i>helenae</i> , <i>Ceratobregma</i> Holleman 1987	V	<i>Ceratobregma helenae</i> Holleman 1987
<i>henchuenensis</i> , <i>Rhinogobius</i> Chen & Shao 1996	VE	<i>Rhinogobius henchuenensis</i> Chen & Shao 1996
<i>himantegus</i> , <i>Achilognathus</i> Günther 1868	V	<i>Tanakia himantegus</i> (Günther 1868)
<i>hollandi</i> , <i>Raja</i> Jordan & Richardson 1909	V	<i>Okamejei hollandi</i> (Jordan & Richardson 1909)
<i>hollandi</i> , <i>Spinibarbus</i> Oshima 1919	VE	<i>Spinibarbus hollandi</i> Oshima 1919
<i>howensis</i> , <i>Crossorhombus</i> Hensley & Randall 1993	V	<i>Crossorhombus howensis</i> Hensley & Randall 1993
<i>hsiojenae</i> , <i>Enneapterygius</i> Shen & Wu 1994	V	<i>Enneapterygius hsiojenae</i> Shen & Wu 1994
<i>hualiensis</i> , <i>Harengula</i> Chu & Tsai 1958	V	<i>Sardinella hualiensis</i> (Chu & Tsai 1958)
<i>humeralis</i> , <i>Coryphopterus</i> Randall 2001	V	<i>Fusigobius humeralis</i> (Randall 2001)
<i>ijimae</i> , <i>Gnathopogon</i> Oshima 1919	VE	<i>Squalidus ijimae</i> (Oshima 1919)
<i>imitator</i> , <i>Cirripectes</i> Williams 1985	V	<i>Cirripectes imitator</i> Williams 1985
<i>immaculatus</i> , <i>Pseudoplesiops</i> Gill & Edwards 2002	V	<i>Pseudoplesiops immaculatus</i> Gill & Edwards 2002
<i>intermedia</i> , <i>Gobiobotia intermedia</i> Banarescu & Nalbant 1968	VE	<i>Gobiobotia intermedia</i> Banarescu & Nalbant 1968
<i>invirgatus</i> , <i>Acrossocheilus</i> Oshima 1920	X	<i>Acrossocheilus paradoxus</i> (Günther, 1868)
<i>jordani</i> , <i>Labeo</i> Oshima 1919	X	<i>Cirrhinus molitorella</i> (Valenciennes 1844)
<i>kaopingensis</i> , <i>Opsariichthys</i> Chen & Wu 2009	VE	<i>Opsariichthys kaopingensis</i> Chen & Wu 2009
<i>kappa</i> , <i>Priolepis</i> Winterbottom & Burrige 1993	V	<i>Priolepis kappa</i> Winterbottom & Burrige 1993
<i>kikuchii</i> , <i>Phoxiscus</i> Oshima 1919	VE	<i>Aphyocypris kikuchii</i> (Oshima 1919)
<i>kobayashii</i> , <i>Mastacembelus</i> Oshima 1926	X	<i>Sinobdella sinensis</i> (Bleeker 1870)
<i>kuoi</i> , <i>Myxine</i> Mok 2002	VT	<i>Myxine kuoi</i> Mok 2002
<i>labiatus</i> , <i>Gymnostomus</i> Regan 1908	X	<i>Acrossocheilus paradoxus</i> (Günther 1868)
<i>lacustre</i> , <i>Crossostoma</i> Steindachner 1908	VE	<i>Formosania lacustre</i> (Steindachner 1908)
<i>lanceolatus</i> , <i>Bregmaceros</i> Shen 1960	V	<i>Bregmaceros lanceolatus</i> Shen 1960
<i>lanyuensis</i> , <i>Rhinogobius</i> Chen, Miller & Fang 1998	VE	<i>Rhinogobius lanyuensis</i> Chen, Miller & Fang 1998
<i>latifascima</i> , <i>Priolepis</i> Winterbottom & Burrige 1993	V	<i>Priolepis latifascima</i> Winterbottom & Burrige 1993
<i>leptorhinus</i> , <i>Coelorinchus</i> Chiou, Shao & Iwamoto 2004	VT	<i>Coelorinchus leptorhinus</i> Chiou, Shao & Iwamoto
<i>leucopunctatus</i> , <i>Enneapterygius</i> Shen & Wu 1994	V	<i>Enneapterygius leucopunctatus</i> Shen & Wu 1994
<i>leucostigma</i> , <i>Gymnothorax</i> Jordan & Richardson 1909	X	<i>Gymnothorax prionodon</i> Ogilby 1895
<i>levisquamis</i> , <i>Spinirhombus</i> Oshima 1927	V	<i>Pseudorhombus levisquamis</i> (Oshima 1927)
<i>lishenus</i> , <i>Acanthurus</i> Shen & Lim 1973	X	<i>Acanthurus pyroferus</i> Kittlitz, 1834
<i>longipinnis</i> , <i>Brachysomophis</i> McCosker & Randall 2001	VT	<i>Brachysomophis longipinnis</i> McCosker & Randall 2001
<i>longirostris</i> , <i>Suggrundus</i> Shao & Chen 1987	V	<i>Thysanophrys longirostris</i> (Shao & Chen 1987)
<i>longirostrum</i> , <i>Dysomma</i> Chen & Mok 2001	VT	<i>Dysomma longirostrum</i> Chen & Mok 2001
<i>longispinis</i> , <i>Laiphognathus</i> Murase 2007	V	<i>Laiphognathus longispinis</i> Murase 2007
<i>macdowellii</i> , <i>Cirricaecula</i> McCosker & Randall 1993	VT	<i>Cirricaecula macdowellii</i> McCosker & Randall 1993
<i>macrolepis</i> , <i>Ischikavia</i> Regan 1908	X	<i>Metzia mesembrinum</i> (Jordan & Evermann 1902)
<i>macrophthalma</i> , <i>Neopercis</i> Pietschmann 1911	V	<i>Parapercis macrophthalma</i> (Pietschmann 1911)
<i>macrophthalmus</i> , <i>Erythroculter</i> Berg, 1934	X	<i>Sinibrama macrops</i> (Günther 1868)
<i>macropodus</i> , <i>Trimmatom</i> Winterbottom 1989	V	<i>Trimmatom macropodus</i> Winterbottom 1989

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TABLE 1 (continued)

Original name	Status	Valid name
<i>macrops</i> , <i>Chanodichthys</i> Günther 1868	V	<i>Sinibrama macrops</i> (Günther 1868)
<i>maculafasciatus</i> , <i>Rhinogobius</i> Chen & Shao 1996	VE	<i>Rhinogobius maculafasciatus</i> Chen & Shao 1996
<i>maculatum</i> , <i>Cephaloscyllium</i> Schaaf-Da Silva & Ebert 2008	VT	<i>Cephaloscyllium maculatum</i> Schaaf-Da Silva & Ebert 2008
<i>mannusella</i> , <i>Nuchequula</i> Chakrabarty & Sparks 2007	V	<i>Nuchequula mannusella</i> Chakrabarty & Sparks 2007
<i>margaretae</i> , <i>Halieutopsis</i> Ho & Shao 2007	V	<i>Halieutopsis margaretae</i> Ho & Shao 2007
<i>martinae</i> , <i>Callionymus</i> Fricke 1981	V	<i>Callionymus martinae</i> Fricke 1981
<i>matsubarae</i> , <i>Nemipterus</i> Jordan & Evermann 1902	X	<i>Nemipterus virgatus</i> (Houttuyn 1782)
<i>matsudai</i> , <i>Lissochilichthys</i> Oshima 1920	X	<i>Acrossocheilus paradoxus</i> (Günther 1868)
<i>mebachi</i> , <i>Thunnus</i> Kishinouye 1915	X	<i>Thunnus obesus</i> (Lowe 1839)
<i>megasomus</i> , <i>Symphurus</i> Lee, Chen & Shao 2009	VT	<i>Symphurus megasomus</i> Lee, Chen & Shao 2009
<i>melanomarginatus</i> , <i>Cirrhilabrus</i> Randall & Shen 1978	V	<i>Cirrhilabrus melanomarginatus</i> Randall & Shen 1978
<i>melanopterus</i> , <i>Acanthurus</i> Shen & Lim 1973	X	<i>Acanthurus pyroferus</i> Kittlitz, 1834
<i>melanostigma</i> , <i>Cirrhinus</i> Fowler & Bean 1922	X	<i>Cirrhinus molitorella</i> (Valenciennes 1844)
<i>melanostigma</i> , <i>Dampiera</i> Fowler 1931	X	<i>Labracinus cyclophthalmus</i> (Müller & Troschel 1849)
<i>melanurum</i> , <i>Dysomma</i> Chen & Weng 1967	VT	<i>Dysomma melanurum</i> Chen & Weng 1967
<i>mesembrinum</i> , <i>Acheilognathus</i> Jordan & Evermann 1902	VE	<i>Metzia mesembrinum</i> Jordan & Evermann 1902
<i>microphthalmus</i> , <i>Dasyatis</i> Chen 1948	VT	<i>Himantura microphthalma</i> (Chen 1948)
<i>microphthalmus</i> , <i>Pinjalo</i> Lee 1987	X	<i>Pinjalo lewisi</i> Randall, Allen & Anderson 1987
<i>microphthalmus</i> , <i>Rhinobatos</i> Teng 1959	VT	<i>Rhinobatos microphthalmus</i> Teng 1959
<i>microps</i> , <i>Sillago</i> McKay 1985	V	<i>Sillago microps</i> McKay 1985
<i>mitsukurii</i> , <i>Bleekeria</i> Jordan & Evermann 1902	V	<i>Bleekeria mitsukurii</i> Jordan & Evermann 1902
<i>miyakamii</i> , <i>Caranx</i> (<i>Atule</i>) Wakiya 1924	X	<i>Alepes kleinii</i> (Bloch 1793)
<i>moltrechti</i> , <i>Pararasbora</i> Regan 1908	VE	<i>Pararasbora moltrechti</i> Regan 1908
<i>monoptera</i> , <i>Ptereleotris</i> Randall & Hoese 1985	V	<i>Ptereleotris monoptera</i> Randall & Hoese 1985
<i>multimaculatus</i> , <i>Symphurus</i> Lee, Munroe & Chen 2009	VT	<i>Symphurus multimaculatus</i> Lee, Munroe & Chen 2009
<i>nakamurai</i> , <i>Hexanchus griseus</i> Teng 1962	V	<i>Hexanchus nakamurai</i> Teng 1962
<i>namiyei</i> , <i>Salarias</i> Jordan & Evermann 1902	V	<i>Ecsenius namiyei</i> (Jordan & Evermann 1902)
<i>nancyae</i> , <i>Ariosoma</i> Shen 1998	X	<i>Ariosoma fasciatum</i> (Günther 1871)
<i>nantaiensis</i> , <i>Rhinogobius</i> Aonuma & Chen 1996	VE	<i>Rhinogobius nantaiensis</i> Aonuma & Chen 1996
<i>nantaiensis</i> , <i>Sinogastromyzon</i> Chen, Han & Fang 2002	VE	<i>Sinogastromyzon nantaiensis</i> Chen, Han & Fang 2002
<i>nantoensis</i> , <i>Liobagrus</i> Oshima 1919	X	<i>Liobagrus formosanus</i> Regan 1908
<i>nebulosa</i> , <i>Synaptura</i> Chen & Weng 1965	X	<i>Synaptura annularis</i> (Fowler 1934)
<i>neglectus</i> , <i>Gymnothorax</i> Tanaka 1911	V	<i>Gymnothorax neglectus</i> Tanaka 1911
<i>nelsoni</i> , <i>Paramyxine</i> Kuo, Huang & Mok 1994	VT	<i>Eptatretus nelsoni</i> (Kuo, Huang & Mok 1994)
<i>niaukang</i> , <i>Centrophorus</i> Teng 1959	V	<i>Centrophorus niaukang</i> Teng 1959
<i>nigra</i> , <i>Eumakaira</i> Hirasaka & Nakamura 1947	X	<i>Makaira mazara</i> (Jordan & Snyder 1901)
<i>nigra</i> , <i>Halicometus</i> Ho, Endo and Sakamaki 2008	V	<i>Halicometus niger</i> Ho, Endo and Sakamaki 2008
<i>nigrodorsalis</i> , <i>Ventrifossa</i> Gilbert & Hubbs 1920	V	<i>Ventrifossa nigrodorsalis</i> Gilbert & Hubbs 1920
<i>nigromarginatus</i> , <i>Callogobius</i> Chen & Shao 2000	VT	<i>Callogobius nigromarginatus</i> Chen & Shao 2000
<i>niphostigmus</i> , <i>Gymnothorax</i> Chen, Shao & Chen 1996	V	<i>Gymnothorax niphostigmus</i> Chen, Shao & Chen 1996

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TABLE 1 (continued)

Original name	Status	Valid name
<i>novemfasciatus</i> , <i>Symphurus</i> Shen & Lin 1984	VT	<i>Symphurus novemfasciatus</i> Shen & Lin 1984
<i>nudus</i> , <i>Neoclinus</i> Stephens & Springer 1971	V	<i>Neoclinus nudus</i> Stephens & Springer 1971
<i>nyctemblema</i> , <i>Choerops</i> Jordan & Evermann 1902	X	<i>Choerodon schoenleinii</i> (Valenciennes 1839)
<i>nyctereutes</i> , <i>Pempheris</i> Jordan & Evermann 1902	V	<i>Pempheris nyctereutes</i> Jordan & Evermann 1902
<i>ocellatus</i> , <i>Pseudocoris</i> Chen & Shao 1995	VT	<i>Pseudocoris ocellata</i> Chen & Shao 1995
<i>octostigmatus</i> , <i>Callionymus</i> Fricke 1981	V	<i>Callionymus octostigmatus</i> Fricke 1981
<i>oculus</i> , <i>Ecsenius</i> Springer 1971	V	<i>Ecsenius oculus</i> Springer 1971
<i>ocyurus</i> , <i>Plectorhynchus</i> Jordan & Evermann 1902	X	<i>Parapristipom trilineatum</i> (Thunberg 1793)
<i>oglina</i> , <i>Lepidotrigla</i> Fowler 1938	V	<i>Lepidotrigla oglina</i> Fowler 1938
<i>oligospondylus</i> , <i>Uropterygius</i> Chen, Randall & Loh, 2008	V	<i>Uropterygius oligospondylus</i> Chen, Randall & Loh 2008
<i>onumai</i> , <i>Chromis</i> Senou & Kudo 2007	V	<i>Chromis onumai</i> Senou & Kudo 2007
<i>opisthoproctus</i> , <i>Dysomma</i> Chen & Mok 1995	VT	<i>Dysomma opisthoproctus</i> Chen & Mok 1995
<i>orientale</i> , <i>Nemaperistedion</i> Fowler 1938	V	<i>Scalicus orientalis</i> (Fowler 1938)
<i>orientalis</i> , <i>Aseraggodes</i> Randall & Senou 2007	V	<i>Aseraggodes orientalis</i> Randall & Senou 2007
<i>orientalis</i> , <i>Halichoeres</i> Randall 1999	V	<i>Halichoeres orientalis</i> Randall 1999
<i>orientalis</i> , <i>Synodus</i> Randall and Pyle 2008	V	<i>Synodus orientalis</i> Randall and Pyle 2008
<i>oshimae</i> , <i>Scomberoides</i> Whitley 1951	X	<i>Scomberoides lysan</i> (Forsskål 1775)
<i>oshimai</i> , <i>Caranx</i> Wakiya 1924	X	<i>Caranx sexfasciatus</i> Quoy & Gaimard 1825
<i>pachycephalus</i> , <i>Opsariichthys</i> Günther 1868	VE	<i>Opsariichthys pachycephalus</i> Günther 1868
<i>paradoxus</i> , <i>Barbus</i> Günther 1868	VE	<i>Acrossocheilus paradoxus</i> (Günther 1868)
<i>pardelotum</i> , <i>Cephaloscyllium</i> Schaaf-Da Silva & Ebert 2008	VT	<i>Cephaloscyllium pardelotum</i> Schaaf-Da Silva & Ebert 2008
<i>parva</i> , <i>Liza</i> Oshima 1922	X	<i>Chelon macrolepis</i> (Smith 1846)
<i>parvum</i> , <i>Cephaloscyllium</i> Inoue & Nakaya 2006	X	<i>Cephaloscyllium sarawakensis</i> Yano, Ahmed, Gambang, Idris, Solahuddin & Azan 2005
<i>parvus</i> , <i>Glossogobius</i> Oshima 1919	X	<i>Mugilogobius cavifrons</i> (Weber 1909)
<i>pelagicus</i> , <i>Alopias</i> Nakamura 1935	V	<i>Alopias pelagicus</i> Nakamura 1935
<i>pepo</i> , <i>Scorpaena</i> Motomura, Poss & Shao 2007	VT	<i>Scorpaena pepo</i> Motomura, Poss & Shao 2007
<i>percnopterygionus</i> , <i>Stiphodon</i> Watson & Chen 1998	V	<i>Stiphodon percnopterygionus</i> Watson & Chen 1998
<i>pescadorensis</i> , <i>Citula</i> Oshima, 1924	X	<i>Carangoides armatus</i> (Rüppell 1830)
<i>pescadorensis</i> , <i>Liza</i> Oshima 1922	X	<i>Chelon macrolepis</i> (Smith 1846)
<i>pescadoresis</i> , <i>Choerodon</i> Yu 1968	X	<i>Choerodon robustus</i> (Günther 1862)
<i>pescadoris</i> , <i>Gymnothorax</i> Jordan & Evermann 1902	X	<i>Gymnothorax isingteena</i> (Richardson 1845)
<i>pescadorus</i> , <i>Bregmaceros</i> Shen 1960	V	<i>Bregmaceros pescadorus</i> Shen 1960
<i>piercei</i> , <i>Satyrichthys</i> Fowler 1938	X	<i>Satyrichthys adeni</i> (Lloyd 1907)
<i>pietschi</i> , <i>Oneirodes</i> Ho & Shao 2004	V	<i>Oneirodes pietschi</i> Ho & Shao 2004
<i>pingtungensis</i> , <i>Candidia</i> Chen, Wu & Hsu 2008	VE	<i>Candidia pingtungensis</i> Chen, Wu & Hsu 2008
<i>pleuron</i> , <i>Apogon</i> Fraser 2005	V	<i>Apogon pleuron</i> Fraser 2005
<i>porosus</i> , <i>Tryssogobius</i> Larson & Chen 2007	V	<i>Tryssogobius porosus</i> Larson & Chen 2007
<i>possii</i> , <i>Scorpaenopsis</i> Randall & Eschmeyer 2001	V	<i>Scorpaenopsis possii</i> Randall & Eschmeyer 2001
<i>procurva</i> , <i>Neomerinthe</i> Chen 1981	V	<i>Neomerinthe procurva</i> Chen 1981

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TABLE 1 (continued)

Original name	Status	Valid name
<i>profugus</i> , <i>Myxus</i> Mohr 1927	X	<i>Liza affinis</i> (Günther 1861)
<i>profundus</i> , <i>Alopias</i> Nakamura 1935	X	<i>Alopias superciliosus</i> (Lowe 1841)
<i>prolatus</i> , <i>Gymnothorax</i> Sasaki & Amaoka 1991	V	<i>Gymnothorax prolatus</i> Sasaki & Amaoka 1991
<i>pseudolanceolatus</i> , <i>Bregmaceros</i> Torii, Javonillo and Ozawa 2004	V	<i>Bregmaceros pseudolanceolatus</i> Torii, Javonillo and Ozawa 2004
<i>psilogaster</i> , <i>Acanthoplesiops</i> Hardy 1985	V	<i>Acanthoplesiops psilogaster</i> Hardy 1985
<i>puliensis</i> , <i>Sinogastromyzon</i> Liang 1974	VE	<i>Sinogastromyzon puliensis</i> Liang 1974
<i>quadrifasciatus</i> , <i>Choerodon</i> Yu 1968	X	<i>Choerodon schoenleinii</i> (Valenciennes 1839)
<i>quadrilineatus</i> , <i>Pomadasys</i> Shen & Lin 1984	V	<i>Pomadasys quadrilineatus</i> Shen & Lin 1984
<i>ramaraoi</i> , <i>Scorpaenopsis</i> Randall & Eschmeyer 2001	V	<i>Scorpaenopsis ramaraoi</i> Randall & Eschmeyer 2001
<i>rastrusus</i> , <i>Caranx</i> Jordan & Snyder 1908	X	<i>Carangoides armatus</i> (Rüppell 1830)
<i>remifera</i> , <i>Anguilla</i> Jordan & Evermann 1902	X	<i>Anguilla japonica</i> Temminck & Schlegel 1846
<i>reticulatus</i> , <i>Acanthurus</i> Shen & Lim 1973	X	<i>Acanthurus xanthopterus</i> Valenciennes 1835
<i>reticulatus</i> , <i>Aetobatus</i> Teng 1962	X	<i>Aetomylaeus vespertilio</i> (Bleeker 1852)
<i>reticulatus</i> , <i>Naso</i> Randall 2001	V	<i>Naso reticulatus</i> Randall 2001
<i>retrospinis</i> , <i>Paratriacanthodes</i> Fowler 1934	V	<i>Paratriacanthodes retrospinis</i> Fowler 1934
<i>rhadinus</i> , <i>Polydactylus</i> Jordan & Evermann 1902	V	<i>Eleutheronema rhadinum</i> (Jordan & Evermann 1902)
<i>richardsoni</i> , <i>Ulua</i> Jordan & Snyder 1908	X	<i>Ulua mentalis</i> (Cuvier 1833)
<i>roseni</i> , <i>Meadia</i> Mok, Lee & Chan 1991	VT	<i>Meadia roseni</i> Mok, Lee & Chan 1991
<i>rotunda</i> , <i>Neomerinthe</i> Chen 1981	V	<i>Neomerinthe rotunda</i> Chen 1981
<i>rubicauda</i> , <i>Enneapterygius</i> Shen & Wu 1994	X	<i>Enneapterygius flavoccipitis</i> Shen & Wu 1994
<i>rubricaudus</i> , <i>Centroberyx</i> Liu & Shen 1985	VT	<i>Centroberyx rubricaudus</i> Liu & Shen 1985
<i>rubrimarginatus</i> , <i>Cirrhilabrus</i> Randall 1992	V	<i>Cirrhilabrus rubrimarginatus</i> Randall 1992
<i>rubromaculatus</i> , <i>Rhinogobius</i> Lee & Chang 1996	VE	<i>Rhinogobius rubromaculatus</i> Lee & Chang 1996
<i>saramao</i> , <i>Salmo</i> Jordan & Oshima in Oshima 1919	X	<i>Oncorhynchus formosanus</i> (Jordan & Oshima 1919)
<i>sauteri</i> , <i>Clarias</i> Regan 1908	X	<i>Clarias fuscus</i> (Lacepède 1803)
<i>sauteri</i> , <i>Pristiurus</i> Jordan & Richardson 1909	V	<i>Galeus sauteri</i> (Jordan & Richardson 1909)
<i>schlegelii</i> , <i>Barbus</i> Günther 1868	X	<i>Hemibarbus labeo</i> (Pallas 1776)
<i>shaoi</i> , <i>Parapercis</i> Randall, 2008	V	<i>Parapercis shaoi</i> Randall, 2008
<i>shaoi</i> , <i>Bufoeratius</i> Pietsch, Ho & Chen 2004	V	<i>Bufoeratius shaoi</i> Pietsch, Ho & Chen 2004
<i>shaoi</i> , <i>Enneapterygius</i> Chiang & Chen, 2008	VT	<i>Enneapterygius shaoi</i> Chiang & Chen 2008
<i>shaoi</i> , <i>Gymnothorax</i> Chen & Loh 2007	VT	<i>Gymnothorax shaoi</i> Chen & Loh 2007
<i>sheni</i> , <i>Caelorinchus</i> Chiou, Shao & Iwamoto 2004	VT	<i>Coelorinchus sheni</i> Chiou, Shao & Iwamoto 2004
<i>sheni</i> , <i>Callogobius</i> Chen, Chen & Fang 2006	VT	<i>Callogobius sheni</i> Chen, Chen & Fang 2006
<i>sheni</i> , <i>Enneapterygius</i> Chiang & Chen, 2008	VT	<i>Enneapterygius sheni</i> Chiang & Chen 2008
<i>sheni</i> , <i>Hemimyzon</i> Chen & Fang, 2009	VE	<i>Hemimyzon sheni</i> Chen & Fang 2009
<i>sheni</i> , <i>Ostichthys</i> Chen, Shao & Mok 1990	V	<i>Ostichthys sheni</i> Chen, Shao & Mok 1990
<i>sheni</i> , <i>Paramyxine</i> Kuo, Huang & Mok 1994	VT	<i>Eptatretus sheni</i> (Kuo, Huang & Mok 1994)
<i>sheni</i> , <i>Plectranthias</i> Chen & Shao 2002	VT	<i>Plectranthias sheni</i> Chen & Shao 2002
<i>sheni</i> , <i>Stalix</i> Smith-Vaniz 1989	V	<i>Stalix sheni</i> Smith-Vaniz 1989
<i>simplex</i> , <i>Erisphex</i> Chen 1981	VT	<i>Erisphex simplex</i> Chen, 1981

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TABLE 1 (continued)

Original name	Status	Valid name
<i>smithi</i> , <i>Flabelligobius</i> Chen & Fang 2003	VT	<i>Tomiyamichthys smithi</i> (Chen & Fang 2003)
<i>snyderi</i> , <i>Puntius</i> Oshima 1919	VE	<i>Puntius snyderi</i> Oshima 1919
<i>spinosa</i> , <i>Ocosia</i> Chen 1981	VT	<i>Ocosia spinosa</i> Chen 1981
<i>springeri</i> , <i>Petroscirtes</i> Smith-Vaniz 1976	V	<i>Petroscirtes springeri</i> Smith-Vaniz 1976
<i>stabilispinosa</i> , <i>Zenopsis</i> Nakabo, Bray & Yamada 2006	V	<i>Zenopsis stabilispinosa</i> Nakabo, Bray & Yamada 2006
<i>striata</i> , <i>Helcogramma</i> Hansen 1986	V	<i>Helcogramma striata</i> Hansen 1986
<i>striatus</i> , <i>Pseudochromis</i> Gill, Shao & Chen 1995	V	<i>Pseudochromis striatus</i> Gill, Shao & Chen 1995
<i>swanius</i> , <i>Cephalopholis</i> Tsai 1960	X	<i>Cephalopholis igarashiensis</i> Katayama 1957
<i>tachiensis</i> , <i>Dalatias</i> Shen & Ting 1972	X	<i>Dalatias licha</i> (Bonnaterre 1788)
<i>tadianus</i> , <i>Ophicephalus</i> Jordan & Evermann 1902	X	<i>Channa maculata</i> (Lacepède 1801)
<i>taipinensis</i> , <i>Amblyeleotris</i> Chen, Shao & Chen 2006	VT	<i>Amblyeleotris taipinensis</i> Chen, Shao & Chen 2006
<i>taitungensis</i> , <i>Hemimyzon</i> Tzeng & Shen 1982	VE	<i>Hemimyzon taitungensis</i> Tzeng & Shen 1982
<i>taiwanae</i> , <i>Paramyxine</i> Shen & Tao 1975	VT	<i>Eptatretus taiwanae</i> (Shen & Tao 1975)
<i>taiwanensis</i> , <i>Acanthopagrus</i> Iwatsuki & Carpenter 2006	VT	<i>Acanthopagrus taiwanensis</i> Iwatsuki & Carpenter 2006
<i>taiwanensis</i> , <i>Brotulinella</i> Schwarzahns, Møller & Nielsen 2005	V	<i>Brotulinella taiwanensis</i> Schwarzahns, Møller & Nielsen 2005
<i>taiwanensis</i> , <i>Chlopsis</i> Chen & Weng 1967	V	<i>Gavialiceps taiwanensis</i> (Chen & Weng 1967)
<i>taiwanensis</i> , <i>Gorgasia</i> Shao 1990	V	<i>Gorgasia taiwanensis</i> Shao 1990
<i>taiwanensis</i> , <i>Gymnothorax</i> Chen, Loh & Shen 2008	VT	<i>Gymnothorax taiwanensis</i> Chen, Loh & Shen 2008
<i>taiwanensis</i> , <i>Hexatrygon</i> Shen 1986	X	<i>Hexatrygon bickelli</i> Heemstra & Smith 1980
<i>taiwanensis</i> , <i>Hyporhamphus</i> Collette & Su 1986	VE	<i>Hyporhamphus taiwanensis</i> Collette & Su 1986
<i>taiwanensis</i> , <i>Parabothus</i> Amaoka & Shen 1993	V	<i>Parabothus taiwanensis</i> Amaoka & Shen 1993
<i>taiwanensis</i> , <i>Pseudobagrus</i> Oshima 1919	VE	<i>Pseudobagrus brevianalis taiwanensis</i> Oshima 1919
<i>taiwanensis</i> , <i>Sardinella</i> Raja & Hiyama 1969	X	<i>Sardinella gibbosa</i> (Bleeker 1849)
<i>taiwanensis</i> , <i>Synodus</i> Chen, Ho & Shao 2007	VT	<i>Synodus taiwanensis</i> Chen, Ho & Shao 2007
<i>taiwanensis</i> , <i>Zacco</i> Chen 1982	X	<i>Opsariichthys pachycephalus</i> Günther, 1868
<i>taiwanica</i> , <i>Homaloptera</i> Kishinouye 1905	X	<i>Hemimyzon formosanus</i> (Boulenger 1894)
<i>taiwanus</i> , <i>Rhinogobius</i> Oshima 1919	X	<i>Rhinogobius candidianus</i> (Regan, 1908)
<i>taiwanus</i> , <i>Spinirhombus</i> Oshima 1927	X	<i>Pseudorhombus cinnamoneus</i> (Temminck & Schlegel 1846)
<i>takakii</i> , <i>Rasborinus</i> Oshima 1920	X	<i>Metzia messembrinum</i> (Jordan & Evermann 1902)
<i>tamusuiensis</i> , <i>Scaphesthes</i> Oshima 1919	X	<i>Onychostoma barbatulus</i> (Oshima, 1920)
<i>tengi</i> , <i>Crossostoma</i> Watanabe 1983	X	<i>Formosania lacustre</i> (Steindachner 1908)
<i>tengi</i> , <i>Negogaleus</i> Chen 1963	V	<i>Paragaleus tengi</i> (Chen 1963)
<i>tenuis</i> , <i>Areliscus</i> Oshima 1927	X	<i>Cynoglossus joyneri</i> Günther 1878
<i>tergocellatoides</i> , <i>Squatina</i> Chen 1963	V	<i>Squatina tergocellatoides</i> Chen 1963
<i>trewavasae</i> , <i>Johnius</i> Sasaki 1992	V	<i>Johnius trewavasae</i> Sasaki 1992
<i>trivittatus</i> , <i>Xyrichthys</i> Randall and Cornish 2000	V	<i>Xyrichthys trivittatus</i> Randall and Cornish 2000
<i>tungkongensis</i> , <i>Laeops</i> Chen & Weng 1965	V	<i>Laeops tungkongensis</i> Chen & Weng 1965
<i>urostigma</i> , <i>Leptojulius</i> Randall 1996	V	<i>Leptojulius urostigma</i> Randall 1996
<i>variabilis</i> , <i>Opistognathus</i> Smith-Vaniz 2009	V	<i>Opistognathus variabilis</i> Smith-Vaniz 2009
<i>vermiculatus</i> , <i>Genicanthus</i> Shen & Lim 1975	X	<i>Genicanthus watanabei</i> (Yasuda & Tominaga 1970)

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TABLE 1 (continued)

Original name	Status	Valid name
<i>verrens</i> , <i>Hemipteronotus</i> Jordan & Evermann 1902	V	<i>Iniistius verrens</i> (Jordan & Evermann 1902)
<i>wisneri</i> , <i>Paramyxine</i> Kuo, Huang & Mok 1994	VT	<i>Eptatretus wisneri</i> (Kuo, Huang & Mok 1994)
<i>yangi</i> , <i>Benthobatis</i> Carvalho, Compagno & Ebert 2003	VT	<i>Benthobatis yangi</i> Carvalho, Compagno & Ebert 2003
<i>yangi</i> , <i>Carcharias</i> Teng 1959	X	<i>Pseudocarcharias kamoharai</i> (Matsubara 1936)
<i>yangi</i> , <i>Hexatrygon</i> Shen & Liu 1984	X	<i>Hexatrygon bickelli</i> Heemstra & Smith 1980
<i>yangi</i> , <i>Paramyxine</i> Teng 1958	V	<i>Eptatretus yangi</i> (Teng 1958)
<i>yangii</i> , <i>Cryptocentrus</i> Chen 1960	VE	<i>Myersina yangii</i> (Chen 1960)
<i>yatsui</i> , <i>Cryptocentrus</i> Tomiyama 1936	VT	<i>Cryptocentrus yatsui</i> Tomiyama 1936
<i>zaps</i> , <i>Cypho</i> Gill 2004	V	<i>Cypho zaps</i> Gill 2004
Questionable species		
<i>inferior</i> , <i>Leptocephalus</i> Shen 1963	?	<i>Anguilla</i> sp. (Larvae)
<i>jordani</i> , <i>Ptychidio</i> Myers 1930	?V	<i>Ptychidio jordani</i> Myers 1930
<i>medius</i> , <i>Leuciscus</i> Oshima 1920	?V	? <i>Xenocypris medius</i> (Oshima 1920)
<i>schisturus</i> , <i>Leuciscus</i> Oshima 1920	?V	? <i>Xenocypris schisturus</i> (Oshima 1920)
<i>caudatum</i> , <i>Leptocephalus</i> Shen 1963	?	<i>Muraena</i> sp. (Larvae)
<i>edentata</i> , <i>Leptocephalus</i> Shen 1963	?	<i>Muraena</i> sp. (Larvae)
<i>truncatum</i> , <i>Leptocephalus</i> Shen 1963	?	<i>Muraena</i> sp. (Larvae)

Three species are considered to be endangered: *Onychostoma alticorpus*, *Pseudobagrus brevianalis*, and *Oncorhynchus formosanus*; and four species are extinct: *Hyporhamphus taiwanensis*, *Metzia mesembrina*, *Myersina yangii*, *Salanx aciticeps* (Chen, 2008).

Table 2 shows the number of new species described in each decade. More new species were described in the most recent two decades than before, with the most recent 4 decades showing a steady increase.

TABLE 2. The number of new fish species described in each decade (counted till 31 Dec. 2009).

	Valid	Invalid	Total
1860s	5	2	7
1890s	1		1
1900s	20	23	43
1910s	10	13	23
1920s	9	26	35
1930s	6	6	12
1940s	1	3	4
1950s	8	4	12
1960s	17	15	32
1970s	11	7	18
1980s	28	8	36
1990s	45	3	48
2000s	65	1	66
Total	225	111	336

Table 3 shows the numbers of type specimens held in world collections. There are approximately 779 lots with 2217 specimens, including 367 lots with 918 specimens deposited in foreign museums and 412 lots with 1177 specimens deposited in Taiwanese museums. Of them, there are 242 holotypes or lectotypes, 5 neotypes, 35 lots of syntypes with 143 specimens, and 497 lots of paratypes or paralectotypes with at least 1705 specimens. Nevertheless, there are still 19 species without a primary type specimen, and 11 lots with at least 31 specimens with unknown paratypes or paralectotypes. In this work, we located 16 type series lots and designated 7 lectotypes. Images of most specimens in this work are available at Taiwan Fish Database (Shao, 2010).

TABLE 3. Numbers of type series collected from Taiwan and held in world collections (counted till 31 Dec. 2009).

	Holotype/ Lectotype	Paratype/ Paralectotype		Syntype		Neotype
	lot/spec.	lot	spec.	lot	spec.	lot/spec.
Foreign museums						
AMNH	2	13	139			
AMS		3	5			
ANSP	10	2	2			
BMNH	7	10	18	14	49	
BPBM	3	20	46			1
BSKU		2	2			
CAS	13	21	56			
FAKU	1	2	4			
FMNH	36	3	3			
FUMT				1	12	
HUMZ	3	3	3			
IBTS	1	1	3			
IHAS				2	7	
MNHN	1	2	2			
MUFS	1	4	4			
NMNZ		1	1			
NMW				5	16	
NRM	1	1	11			
NTM		1	2			
SAIAB		4	4			
SDSU		1	1			
SIO	1	5	12			
SMF		1	10			
SMNS				1	5	
SU	9	35	48			
UBC		1	1			
UF		1	1			
USNM	18	58	291			
UTIO-F		1	1			
WIRI	1	7	10			
ZMB	3	1	1	1	2	

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TABLE 3 (continued)

	Holotype/ Lectotype	Paratype/ Paralectotype		Syntype		Neotype
	lot/spec.	lot	spec.	lot	spec.	lot/spec.
ZMUC		1	1			
ZRC		1	1			
ZUMT	13	12	19			
Subtotal	124	218	702	24	91	1
Taiwanese museums						
ASIZP	42	115	305			1
NMMBP	4	28	157			
NMSMP		1	1			
NSYU	11	11	190			
NTMP	3	2	17			
NTOUP	5	22	93			
NTUM	32	75	197	2	9	3
TFRI	14	9	22			
THUP(NMMBP)	6	8	8	9	43	
TOU-AE	1	8	13			
Subtotal	118	279	1003	11	52	4
Total	242	497	1705	35	143	5

Table 3 shows where these type specimens are deposited at foreign and domestic museums. Most of these type specimens have been examined by us during the repatriation project of TELDAP (Taiwan E-learning and Digital Archive Program) in recent years. It should be noted that the type series originally deposited in the Carnegie Museum (CM) is now deposited in FMNH. The collection of Stanford University (SU) is now at CAS. A portion of the specimens used in Jordan and Evermann (1902) were returned to Imperial Fisheries Institute and deposited at ZUMT; however, most of these type specimens were apparently lost based on our investigation and Mr. Kazuo Sakamoto's confirmation. Most of the specimens used by Jordan and Richardson (1909) were sent to CM (primary types) and SU (others). The type series used in Oshima (1919) were sent to FMNH (holotypes) and CAS (others) which were mostly relocated by us. The type series used in Oshima (1920) were deposited in ANSP. Yet, a large part of type series used in later publications by Oshima (1927) was deposited at Taiwan Government Museum [in Tainan?] and was apparently lost. The Tonghai University (THUP) collection was transferred to the National Museum of Marine Biology and Aquarium (NMMBP) in 2004.

Annotated checklist and type catalog of fish genera and species collected from Taiwan

Family Myxinidae (001)

Quadratus Wisner, 1999

= *Eptatretus* Cloquet

Type species: *Paramyxine taiwanae* Shen and Tao, 1975

1. *Myxine formosana* Mok and Kuo, 2001:295, fig. 2

Holotype: NSYU 3038 (288 TL), 22°15'34"N, 120°06'05"E, SW Taiwan, 753 m.

Paratype: NSYU 3036 (1, 114 TL), 22°09'32"N, 120°15'34"E, 588 m, 5 Dec. 1996; NSYU 3037 (119, 102–370 TL), 22°11'20"N, 120°13'42"E, 843 m, 18 Dec. 1997; NSYU 3039 (44, 100–350 TL), collected with holotype.

2. *Myxine kuo* Mok, 2002:60, fig. 1

Holotype: NSYU 3176 (187 TL), R/V Ocean Researcher III, cr. 380, sta. 1, 22°29'35"N, 120°03'34"E, waters of southwestern Taiwan, 595 m, 25 Nov. 1997.

Paratype: NSYU 3177 (4, 123–187 TL), collected with the holotype; NSYU 3178 (1, 410 TL), female, Tong Kang fish market, southwest coast of Taiwan, 15 Feb. 1997.

3. *Paramyxine cheni* Shen and Tao, 1975:71, fig. 3

= *Eptatretus cheni* (Shen and Tao)

Holotype: NTUM 7502711 (377 TL), female, Tong-kong (20°28.0'N, 120°26.3'E, southwestern part of Taiwan, single trawling net, 180 m, 10 Feb. 1975.

Paratype: NTUM 7502712 (1, 357 TL), NTUM 7502713 (1, 226 TL) and NTUM 7502714 (1, 361 TL); Tong-kong, caught by single trawling net, 180 m.

4. *Eptatretus chinensis* Kuo and Mok, 1994:246, figs. 2–3

Holotype: NSYU 2866 (348 TL), 19°37'N, 113°14'E, South China Sea, 600 m, May 1989.

Paratype: NSYU 2867 (2, 352–335 TL), collected with holotype.

Remark. This species is only represented by the type series collected from off southeastern Taiwan in the northern border of South China Sea.

5. *Paramyxine fernholmi* Kuo, Huang and Mok, 1994:135

= *Eptatretus fernholmi* (Kuo, Huang and Mok)

Holotype: NSYU 2864 (280 TL), southwestern coast of Taiwan, 8 Feb. 1988.

Paratype: NSYU 2863 (2, 280–295 TL), Tongkang, eastern coast of Taiwan, 300 m, Feb. 1991.

6. *Paramyxine nelsoni* Kuo, Huang and Mok, 1994:131

= *Eptatretus nelsoni* (Kuo, Huang and Mok)

Holotype: NSYU 2857 (190 TL), southwestern coast of Taiwan, 50–200 m, 5 Jun. 1988.

7. *Paramyxine sheni* Kuo, Huang and Mok, 1994:132, fig. 6

= *Eptatretus sheni* (Kuo, Huang and Mok)

Holotype: NSYU 2585 (380 TL), southwestern coast of Taiwan, 450 m, 30 Jan. 1989.

Paratype: NSYU 2865 (11, 320–436 TL), southwestern coast of Taiwan, 400 m, 9 Feb. 1988.

8. *Paramyxine taiwanae* Shen and Tao, 1975:73, fig. 4

= *Eptatretus taiwanae* (Shen and Tao)

Holotype: NTUM 7202715 (300 TL), 24°56.5'N, 121°53.0'E, Ta-chi [Ta-shi], northeastern Taiwan, single trawling net, 180 m, 3 Nov. 1972.

Paratype: NTUM 7200304 (22), NTUM 7200315 (10), and NTUM 7200918 (5), Ta-Chi [Tashi, NE Taiwan]; NTUM 7300710 (4), Tong-kong [Tongkang, SW Taiwan]; NTUM 7500412 (58) and NTUM 7201103 (18), Nan-Fong-Ao [Nanfangao, NE Taiwan].

9. *Paramyxine wisneri* Kuo, Huang and Mok, 1994:137, figs. 8–9

= *Eptatretus wisneri* (Kuo, Huang and Mok, 1994)

Holotype: NSYU 2868 (335 TL), coastal waters of Fukan, Taiwan, 200 m, Feb. 1991.

Paratype: NSYU 2869 (3, 204–308 TL) taken with the holotype; NSYU 2870 (2, 159–198 TL), 28 Sept. 1990.

Remark. This species only represented by the type series collected from coastal waters of Fukan Province, near China.

10. *Paramyxine yangi* Teng, 1958:3, figs. A–E

= *Eptatretus yangi* (Teng)

Holotype: TFRI 103529 (243 TL), from Kaohsiung fish market [SW Taiwan].

Paratype: TFRI 103423 (1), TFRI 103510–13 (4), TFRI 103528 (1), TFRI 103530 (1).

Remark. Teng (1958) mentioned that the description was based on 8 specimens collected by H.–C. Yang from Kaohsiung fish market and indicated the type was Taiwan Fishery Institute No. 103529 (243 TL). Hence, the remaining 7 specimens were paratypes.

Parascylliidae (009)

11. *Cirrhoscyllium formosanum* Teng, 1959b:1, pl. 1

Holotype: TFRI 3574 (367 TL), Off Kaohsiung, [SW Taiwan,] ca.110 m, bottom long line, 14 Mar. 1958.

Paratype: TFRI 3576–86 (11, 347–390 TL), same locality of holotype, 17 Mar. 1958.

Remark. Goto and Nakaya (1996) reviewed the genus and examined 11 paratypes of this species. The catalog numbers provided in their material examined were TFRI 103576–103586.

Pseudocarchariidae (018)

12. *Carcharias yangi* Teng, 1959a:1, fig. 1

= *Pseudocarcharias kamoharai* (Matsubara)

Holotype: TFRI 2895 (1000 TL), 24°36'N, 121°52'E, Su–ao fish market, Formosa [NE Taiwan], Dec. 1956, coll. H.–C. Yang.

Alopiidae (020)

13. *Alopias pelagicus* Nakamura, 1935:3, 5, pl. 1, fig. 2

Syntype: unknown, four specimens collected from Market at Suô [Suao], 24°36'N, 121°52'E, eastern coast of Formosa, Mar. 1934, coll. H. Nakamura.

Remark. The original type series was not registered and apparently does not exist.

14. *Alopias profundus* Nakamura, 1935:2, 4, pl. 1, fig. 1

= *Alopias superciliosus* (Lowe)

Syntype: unknown, four specimens collected from Market at Suô [Suao], eastern coast of Formosa, 24°36'N, 121°52'E, Mar. 1934, coll. H. Nakamura.

Remark. The original type series was not registered and apparently does not exist.

Scyliorhinidae (023)

15. *Cephaloscyllium formosanum* Teng, 1962:48, fig. 11

= *Cephaloscyllium umbratile* Jordan and Fowler

Holotype: TFRI 4339 (female, 655 TL), Off Tung kang [Tongkang], southwest coast of Taiwan, 22°25'N, 120°25'E, ca. 200 fm, 7 Mar. 1961.

Remark. Although Inoue and Nakaya (2006) considered this as a valid species, Schaaf–Da Silva and Ebert (2008) regarded it as a junior synonym of *C. umbratile*.

16. *Cephaloscyllium parvum* Inoue and Nakaya, 2006:78, figs.1–5, 6A

= *Cephaloscyllium sarawakensis* Yano, Ahmed, Gambang, Idris, Solahuddin and Azan

Paratype: HUMZ 170770 (1, male, 166 TL), off Kaohsiung, southwestern Taiwan.

Other type: HUMZ 109126 (holotype) and 3 paratypes.

17. *Cephaloscyllium pardelotum* Schaaf–Da Silva and Ebert, 2008:3, figs. 1, 5a, 7a

Holotype: CAS 224876 (female, 202 TL), 22°27.6'N, 120°26.4'E, Tungkang, [Tong, kang, SW] Taiwan, 21 Apr. 1988, coll. D. A. Ebert.

18. *Cephaloscyllium maculatum* Schaaf–Da Silva and Ebert, 2008:7, figs. 5b, 6, 7b, 10b

Holotype: CAS 224877 (male, 188 TL), 24°35.7'N, 121°50.7'E, Su–ao, [NE] Taiwan, 3 Apr. 1988, coll. D. A. Ebert.

19. *Pristiurus sauteri* Jordan and Richardson, 1909:160, pl. L13, fig. 1

= *Galeus sauteri* (Jordan and Richardson)

Holotype: FMNH 55193 (formly CM 219), Takao [Kaohsiung], [SW] Taiwan.

Paratype: FMNH 55194 (1) and SU 21261 (4), same data as holotype.

Remark. The specimen in Jordan and Richardson's figure is labeled as "type" and has been determined to be the holotype.

Proscylliidae (024)

20. *Proscyllium habereri* Hilgendorf, 1904:39

Holotype: ZMB 16201 (520 TL), Takao [Kaohsiung, SW Taiwan], coll. K. A. Haberer.

Remark. Dr. P. Bartsch (ZMB) kindly informed us that the holotype exists in the ZMB collection.

Hemigaleidae (028)

21. *Negogaleus tengi* Chen, 1963:77

= *Paragaleus tengi* (Chen)

Holotype: THUP 1802 (810 TL), Taichung market [central western Taiwan].

Paratype: THUP 1803 (1, 750 TL) and THUP 1804 (1, 770 TL), same as holotype.

Remark. Chen (1963) indicated that the drawing was based on THUP 1802 which should be the holotype. The type series is believed to be lost.

Hexanchidae (032)

22. *Hexanchus griseus nakamurai* Teng, 1962:30, fig. 5

= *Hexanchus nakamurai* Teng

Holotype: TFRI 2515 (male, 750 TL), Keelung, Formosa [N Taiwan], 5 Sep. 1955.

Paratype: TFRI 3280 (1, female, 970 TL), Keelung, Formosa [N Taiwan].

Centrophoridae (035)

23. *Centrophorus armatus barbatus* Teng, 1962:151, fig. 38

= *Centrophorus atromarginatus* Garman

Holotype: TFRI 34 (male, 586 TL), 24°50'N, 122°05'E, northeast coast of Formosa, ca.450 m.

Paratype: TFRI uncat. (1, 417 TL), from the same locality of holotype.

24. *Centrophorus niaukang* Teng, 1959d: 1, pl.1

Holotype: TFRI 3612 (female, 1540 TL), 24°48'N, 121°54'E, Tou–cheng, near Kuei–shan Island, Ilan Prefecture, off northwestern coast of Formosa [NE Taiwan], ca.250 m, bottom long line, 11 Mar. 1958.

Etmopteridae (036)

25. *Etmopterus burgessi* Schaaf–Dasilvai and Ebert, 2006:54, fig. 1

Holotype: CAS 223476 (male, 355 TL), 24°53'N, 122°01'E, Ta–Chi, [Tashi, NE] Taiwan, coll. D. A. Ebert, 11 May 1988.

Paratype: CAS 223477 (1, female, 406 TL), 22 May 2005; CAS 223478 (1, female, 241 TL), 23 May 2005; CAS 113479 (1, female, 239 TL), 21 May 2005; same data as holotype.

Dalatiidae (039)

26. *Dalatias tachiensis* Shen and Ting, 1972:18, fig. 3

= *Dalatias licha* (Bonnaterre)

Holotype: NTUM 7234001 (male, 480 TL), 24°56.5'N, 121°53'E, 3000 m off the coast of Ta–Chi [Tashi], northeast of Taiwan, 183–219m.

27. *Squaliolus alii* Teng, 1959c:1, pl.1

= *Squaliolus aliae* Teng

Holotype: TFRI 3837 (female, 181 TL), off Tung kang [Tongkang, SW Taiwan,] ca.330 m, bottom lone line, 23 Sep. 1958.

Remark. This species was named after Teng's wife, Ali, and the species name should be *aliae*. Although Seigel et al. (1977) synonymized this species with *S. laticaudus*, Sasaki and Uyeno (1986) recognized it as a distinct species.

Squatinae (040)

28. *Squatina formosa* Shen and Ting, 1972:21, fig. 4

Holotype: NTUM 7213130 (female, 337 TL), 20°28'N, 120°26.3'E, Tung–kong [Tongkang], southwestern part of Taiwan, 180 m, 31 Jan. 1972.

Paratype: NTUM 7041631 (1 female, 377 TL) and NTUM 704632 (1, female, 457 TL), 24°56.5'N, 121°53.0'E, Ta–chi [Tashi], northeastern of Taiwan, 183–219 m; NTUM 7222433 (1, female, 377 TL).

Remark. According to Walsh and Ebert (2007), the holotype is now labeled as NTUM 1329.

29. *Squatina tergocellatoides* Chen, 1963:98, fig. 28

Holotype: THUP 0348 (625 TL), Taiwan Strait [W Taiwan].

Remark. Walsh and Ebert (2007) mentioned that the holotype might be lost. However, we relocated the holotype in the THUP collection.

Torpedinidae (042)

30. *Torpedo formosa* Haas and Ebert, 2006:2, figs.1–3

Holotype: CAS 223471 (male, 332 TL), 24°53'N, 122°01'E, Tashi Fish Market, [NE] Taiwan, coll. D. A. Ebert, 9 Apr. 1988.

Paratype: CAS 223472 (1 male, 243 TL), 12 Apr. 1988, same locality as holotype; CAS 223473 (1 female, 241 TL), 25 May 2005, same locality as holotype.

Remark. This species had long been misidentified as *T. nobiliana* (ex. Shen et al., 1993). It is only found from off Northern and Southern Taiwan (Ho, pers. obser.).

Narcinidae (043)

31. *Benthobatis yangi* Carvalho, Compagno and Ebert, 2003:928, fig. 1–7

Holotype: SIO 70–274 (215 TL), sta. SDSC 70–143, 22°28.0'N, 120°26.0'E, off Tungkang [Tungkang, SW] Taiwan, otter trawl, coll. L. Chen, 30 Jun. 1970.

Paratype: BMNH 1990.7.18.1 (1), 22°26'N, 120°30'E, Tungkang fish market, <300 m, D. A. Ebert; SIO 70–274 (2, 161–191 TL), collected with holotype; NTUM 01712 (1), Tungkang, Taiwan, 13 Sept. 1972.

Remark. This species has long been misidentified as *B. moresbyi* (ex. Shen et al., 1993). It is only found from the southwestern Taiwan off Tungkang (Ho, pers. obser.).

Rhinobatidae (047)

32. *Rhinobatos formosensis* Norman, 1926:958, fig. in text

Syntype: BMNH 1862.12.6.69–70 (2, 625–630 TL), Formosa, coll. R. Swinhoe.

33. *Rhinobatos microphthalmus* Teng, 1959e:11, pl.2, fig. 6

Holotype: TFRI 3089 (female, 1215 TL), Keelung fish market, 17 Mar. 1957, coll. H.–C. Yang.

Rajidae (048)

34. *Raja hollandi* Jordan and Richardson, 1909:163, pl. L14

= *Okamejei hollandi* (Jordan and Richardson)

Holotype: FMNH 52101 (formerly CM 224) (254 DW), Takao [Kaohsiung, SW Taiwan,] coll. Hans Sauter.

Hexatrygonidae (051)

35. *Hexatrygon brevirostra* Shen, 1986b:106, figs.1–3

= *Hexatrygon bickelli* Heemstra and Smith

Holotype: NTUM 06597 (621.4 TL), Tung–kang [Tungkang] fish market, southwestern coast of Taiwan, 362 m, 14 Mar. 1986.

36. *Hexatrygon taiwanensis* Shen, 1986a:175, figs.1–5

= *Hexatrygon bickelli* Heemstra and Smith

Holotype: NTUM 06505 (582 TL), Tung–kong [Tungkang], fish market, southwestern coast of Taiwan, trawl, 370 m, 30 Dec. 1985.

37. *Hexatrygon yangi* Shen and Liu, 1984:201, figs.1–11

= *Hexatrygon bickelli* Heemstra and Smith

Holotype: NTUM 06100 (1040 TL), Tung–kong [Tungkang] fish market, southwestern coast of Taiwan, 500 m, 29 Nov. 1984.

Dasyatidae (055)

38. *Dasyatis cheni* Teng, 1962:237, fig. 65

= *Dasyatis zugei* (Müller and Henle)

Holotype: TFRI 2776 (286 DW), gravid female, Keelung, Formosa [N Taiwan].

39. *Dasyatis microphthalmus* Chen, 1948:8, fig. 6

= *Himantura microphthalmus* (Chen)

Holotype: unknown (male, 737 TL), Keelung market, [N] Taiwan.

Remark. The location of the holotype is unknown. Manjaji–Matsumoto and Last (2006) mentioned that it is closely related to *Dasyatis acutirostra* but might belong to *Himantura*.

Myliobatidae (058)

40. *Aetobatus reticulatus* Teng, 1962:252, fig. 71

= *Aetomylaeus vespertilio* (Bleeker)

Holotype: TFRI 2820 (1075 DW), Keelung, Formosa [N Taiwan].

41. *Mobula formosana* Teng, 1962:259, fig. 74

= *Mobula tarapacana* (Philippi)

Holotype: TFRI 2911 (1052 DW), Keelung, Formosa [N Taiwan].

Anguillidae (074)

42. *Anguilla remifera* Jordan and Evermann, 1902:325, fig. 7

= *Anguilla japonica* Temminck and Schlegel

Holotype: ZUMT 12064 (47 TL), Hokoto [Hokuto, Taipei City], Formosa.

Remark. The holotype is apparently lost (Kazuo Sakamoto, pers. comm., 24 Oct. 2007).

Muraenidae (79)

Cirrimaxilla Chen and Shao, 1995:328

Type species *Cirrimaxilla formosa* Chen and Shao, 1995.

43. *Cirrimaxilla formosa* Chen and Shao, 1995:330, figs.1–3

Holotype: ASIZP 56729 (female, 166 TL), tide pool, Nanwan, southern tip of Taiwan, 120°46'E, 21°57'N, 18 Jun. 1987, coll. K.T. Shao.

44. *Gymnothorax leucostigma* Jordan and Richardson, 1909:174, pl.17, lower fig.

= *Gymnothorax prionodon* Ogilby

Holotype: FMNH 52124 (formly CM 253), (787 TL), Takao [Kaohsiung], coll. Hans Sauter.

45. *Gymnothorax neglectus* Tanaka, 1911:28, pl. 7, fig. 24

Holotype: ZUMT 2165 (390 TL), Keelung, Taihoku [Taipei], Formosa [N Taiwan], coll. M. Oshima.

Remark. The holotype was apparently lost (Kazuo Sakamoto, pers. comm., 24 Oct. 2007).

46. *Gymnothorax niphostigmus* Chen Shao and Chen, 1996:20, figs.1–3

Holotype: ASIZP 56940 (713 TL), Hopingtao fish market, 25°11'N, 121°51'E, Keelung, Taiwan, 100–150 m, long-line.

Paratype: ASIZP 56941 (1, 757 TL), Aoti, Taipei, 25°06'N, 121°58'E, 4 Mar. 1992, coll. H. –M. Chen; TFRI–TT 063 (1, 737), Chenkung, 23°1'N, 121°22'E, Taitung, 5 Jun. 1993, coll. H. M. Chen; TFRI–TT 071 (1, 635 TL), Changpin, 23°18'N, 121°27'E, Taitung, 35–40 m, longline, 23 Oct. 1993, coll. H. S. Don.

47. *Gymnothorax pescadoris* Jordan and Evermann, 1902:326, fig. 8

= *Gymnothorax isingteena* (Richardson)

Holotype: SU 12686 (fromly SU 7131) (1016 TL), Hokoto [Hokuto, Taipei City] or Pescadores Island, coll. T. Tada.

48. *Gymnothorax prolatus* Sasaki and Amaoka, 1991:7, figs. 1–3

Holotype: HUMZ 107775 (gravid female, 370.5 TL), Suao fish market, east coast of northern Taiwan, bottom trawl, 9 Apr. 1986, coll. K. Nishida.

Remark. Although Chen et al. (1994) mentioned this might be a junior synonym of *Strophidon sathete*, Böhlke (1997) recognized it as valid.

49. *Gymnothorax shaoi* Chen and Loh, 2007:77, figs.1–4

Holotype: ASIZP 62978 (567 TL), 23.130°N, 121.414°E, off Shore of Sanshengtai, Chengkung, Taitung, Taiwan, longline, coll. W.–J. Yang, 19 Aug. 2003.

Paratype: ASZIP 62979–80 (2, 402–457 TL); same as holotype; TOU–AE 0370–3, TOU–AE 0375 (4, males, 398–608 TL), TOU–AE 0372 (1, female, 405 TL), same as holotype; TOU–AE 0381 (1, female, 379 TL), 23.156°N, 121.405°E, tidal pool of Hsiaogang, Chengkung, Taitung, clove oil, coll. K.–H. Loh, 22. Tun. 2003; TOU–AE 1797 (1, female, 492 TL), 23.311°N, 121.453°E, off shore of Changbin, Taitung, longline, Coll. J.–S. Chiou, 1 Aug. 2005.

50. *Gymnothorax taiwanensis* Chen, Loh & Shao, 2008: 132, figs. 1, 2

Holotype: ASIZP 69371 (male, 413 TL), 23°29'N, 121°30'E, Hualien, [E.] Taiwan, 10 m, 3 Jun. 2006, coll. J.–S. Chiou.

Paratype: ASIZP 69372 (female, 425 TL), 23°18'N, 121°26'E, off–shore from Changbin, Taitung, Taiwan, 8 m, 1 Aug. 2005; ASIZP 69373 (male, 448 TL), 23°29'N, 121°30'E, off–shore from Shihtiping, 15 m, 14 Jul. 2005; TOU–AE 1217–8, 1223 (3 males, 452–523 TL), 23°45'N, 121°34'E, off–shore from Shuilien, Hualien, [E.] Taiwan, 3 Jul. 2005; TOU–AE 1225 (1 female, 351 TL), off–shore fro, Shuilien, 1 Jul. 2005; TOU–AE 1238, 1296, 1297 (1 male and 2 female, 392–425 TL), off–shore from Changbin, 8 Jul. 2005; TOU–AE 1332, 1333 (1 male and 1 female, 396–397 TL), off–shore from Shuilien, 2 Jul. 2005; coll. J.–S. Chiou.

51. *Uropterygius oligospondylus* Chen, Randall & Loh in Loh, Chen, Randall & Chen, 2008: 141, figs. 1H, 3, 4

Holotype: TOU–AE 1862 (male, 448 TL), 23.311°N, 121.453°E, off shore of Changbin, Taitung, Taiwan, 15 m, longline, 1 Jun. 2006, coll. J.–S. Chiou.

Other type: 3 paratypes.

Synphobranchidae (080)

52. *Dysomma longirostrum* Chen and Mok, 2001:79, figs.1A, 2

Holotype: NSYU 2732 (196 TL), Nanfangao fish market, northeastern coast of Taiwan, bottom trawl, 100–150 m, 12 Sep. 1992, coll. Y. –Y. Chen.

53. *Dysomma melanurum* Chen and Weng, 1967:84

Lectotype. NMMBP 5284 (formerly THUP 1687) (275 TL), Tungkang, Taiwan, Feb. 1961.

Paralectotype. NMMBP 3885 and NMMBP 5470 (formerly THUP 1687) (2, 213–215 TL), same as the lectotype.

54. *Dysomma opisthoproctus* Chen and Mok, 1995:927, fig. 1

Holotype: NSYSU 2701 (420.5 TL), 24°51'24"N, 121°58'30"E, off the coast of Nan–Fong–Ao [Nanfangao, NE Taiwan], 200 m, 12 Sept. 1992.

55. *Meadia roseni* Mok, Lee and Chan, 1991:39, figs.1–3

Holotype: NSYU 2582 (745 TL), 22°21'05"N, 120°12'46"E, [off Tungkang, SW Taiwan], 1020 m, trap, 9 Feb. 1988.

Ophichthidae (081)

56. *Brachysomophis longipinnis* McCosker and Randall, 2001:23, figs.5, 7, 8, 13

Holotype: CAS 30568 (421 TL), Taiwan Strait, Formosa Bank, 22°40'N, 118°30'W, ca.50 m, Jun. 1973, coll. F. B. Steiner.

57. *Cirricaecula macdowelli* McCosker and Randall, 1993:190, figs.1–2

Holotype: CAS 15599 (228 TL), Taiwan Strait, south of Taiwan Banks to P'enghu Ch'untao (Pascadores) Island, trawled in 30–50 m, 5 May 1972, coll. F. B. Steiner.

58. *Myrophis cheni* Chen and Weng, 1967:39, fig. 29

= "*Neenchelys*" *cheni* (Chen and Weng)

Lectotype. NMMBP 3019 (formerly THUP 3234) (350 TL), Tungkang, May 1966.

Paralectotype. NMMBP 1534 (formerly THUP 3328) (335 TL), Tungkang, Sep. 1966.

Remark. Examination on the holotype revealed that this is clearly a species of *Neenchelys*. A review of this genus is being performed by Ho et al.

59. *Ophichthus aphotistos* McCosker and Chen, 2000:354, fig. 1–3

Holotype: CAS, 209192 (580 TL), female, Tung–Kong [Tongkang] Channel, southwestern Taiwan, 22°22'N, 120°19'E, 700–800 m, 20 Feb. 1999, coll. Y. –Y. Chen.

Paratype: NSYU 3657 (1, 480 TL) and USNM 356862 (1, 628 TL), females, collected with holotype.

60. *Ophichthus evermanni* Jordan and Richardson, 1909:172, pl.17, upper fig.

= *Ophichthus lithinus* (Jordan and Richardson)

Holotype: FMNH 52118 (formerly CM 246) (533 TL), Takao [Kaohsiung, SW Taiwan], coll. Hans Sauter.

Paratype: SU 21260 (1, 482 TL), same as holotype.

61. *Xyrius chioui* McCosker, Chen & Chen, 2009:63, Figs. 1–3, 4a

Holotype: TOU–AE 1561 (male, 819 TL), 23°17'N, 121°27'E, Changbin, Taitung County, E Taiwan, depth 60–70 meters. Oct. 2004, coll. J.–S. Chiou

Congridae (082)

62. *Ariosoma nancyae* Shen, 1998:10, fgs.3A,B, 5C, 6C

= *Ariosoma fasciatum* (Günther)

Holotype: NTUM 07871 (750.1 TL), Nanfangao fish market, northeastern coast of Taiwan, bottom trawl, coll. K. Y. Wu.

Paratype: ASIZP 58529 (2, 435.5–474.4 TL), Tai–tung, 12 Aug. 1994, coll. H. M. Chen.

63. *Gorgasia taiwanensis* Shao, 1990:4, figs. 2–6

Holotype: ASIZP 56584 (538 TL), Wan–li–tung, Hengchun, southern part of Taiwan, 21°58'N, 120°43'E, 22 m, 15 Apr. 1989, coll. K. –T. Shao.

Paratype: ASIZP 56585 (6, 454–741 TL), Wan–li–tung, 22 m, 15 Mar. 1989; ASIZP 56586 (9, 534–721 TL), Wan–li–tung, 14 m, 18 Mar. 1986; BPBM 33506 (1, 496 TL), SMF 22498 (1, 638 TL), and ZUMT 56359 (1, 549 TL), sand area at a depth of 20 m, 2 Feb. 1987.

Remark. One paratype, ZUMT 56359, is probably still in Abe's collection (Sakamoto, pers. Comm., Oct. 2007).

64. *Leptocephalus ectenurus* Jordan and Richardson, 1909:171, pl. L16, lower fig.

= *Rhynchoconger ectenurus* (Jordan and Richardson)

Holotype: FMNH 52117 (fromly CM 245), (228 TL), Takao, coll. Hans Sauter.

Paratype: SU 21259 (1, 510 TL), same as holotype.

Remark. The figured specimen is labeled as “type” and has been determined to be holotype.

65. *Rhynchoconger brachuata* Chu and Chen, 1958:127, fig. 1

= *Rhynchoconger ectenurus* (Jordan and Richardson)

Holotype: Taiwan Museum (NTMP) no.41 (340 TL), fish market in Taipei.

Paratype: Taiwan Museum (NTMP) uncat. (16, 2 c & s), fish market in Taipei.

Remark. Type specimens are believed to be lost.

66. *Rhynchoconger brevirostris* Chen and Weng, 1967:54, fig. 40

= *Macrocephenchelys brevirostris* (Chen and Weng)

Lectotype. NMMBP 5177 (formerly THUP 3078) (320 TL), Tungkang [SW Taiwan], Aug. 1956.

Paralectotype. NMMBP 4181 (formerly THUP 3236 and 3241) (2, 282-293 TL), Tungkang [SW Taiwan], May 1966.

Muraenesocidae (084)

67. *Chlopsis taiwanensis* Chen and Weng, 1967:81, fig. 61

= *Gavialiceps taiwanensis* (Chen and Weng)

Lectotype. NMMBP 1405 (formerly

THUP 2671) (564 TL), Tungkang [SW Taiwan], Jan. 1965.

Paralectotype. NMMBP 1360 and NMMBP 1410 (formerly THUP 2784) (27, 310-610 TL), Tungkang [SW Taiwan], Mar. 1965.

Clupeidae (097)

68. *Harengula hualiensis* Chu and Tsai, 1958:116, figs.2–4

= *Sardinella hualiensis* (Chu and Tsai)

Neotype: NTUM 97567 (155.3), Hualien, gillnet, 3 Jan. 1989.

Remark. The original holotype (NTUM 12567) and 19 paratypes were apparently lost. A neotype was designated by Shen and Wang (1991), and 7 non-type specimens were included in description.

69. *Sardinella taiwanensis* Raja and Hiyama, 1969:90, pl.2–b

= *Sardinella gibbosa* (Bleeker)

Syntype: FUMT-P 3459 (12, 99–127), 19 Oct. 1966, Taiwan.

Remark. In the original description, Raja and Hiyama (1969) only mentioned 12 specimens collected from Taiwan and did not provided any catalog number. Dr. Y. Yamanoue (pers. comm., 24 Oct. 2008) searched the FUMT collection and found only 6 specimens in the jar. There may be another jar contained the remaining specimens.

Cyprinidae (102)

Acrossocheilus Oshima, 1919:206

Type species: *Gymnostomus formosanus* Regan

Candidia Jordan and Richardson, 1909:169

Type species: *Opsariichthys barbatus* Regan

Leucisculus Oshima, 1920a:128

= *Mylopharyngodon* Peters

Type species: *Leucisculus fuscus* Oshima

Lissochilichthys Oshima, 1920a:124

= *Acrossocheilus* Oshima

Type species: *Lissochilichthys matsudai* Oshima

Metzia Jordan and Thompson, 1914:227

Type species: *Acheilognathus mesembrinum* Jordan and Evermann

Pararasbora Regan, 1908:360

Type species: *Pararasbora moltrechti* Regan

Phoxiscus Oshima, 1919:225

= *Aphyocypris* Günther

Type species: *Phoxiscus kikuchii* Oshima

Rasborinus Oshima, 1920a:130

= *Metzia* Jordan and Richardson

Type species: *Rasborinus takakii* Oshima

Scaphesthes Oshima, 1919:208

Type species: *Scaphesthes tamusuiensis* Oshima

Scaphiodontella Oshima, 1920a:125

= *Onychostoma* Günther

Type species: *Scaphiodontella alticarpus* Oshima

Spinibarbus Oshima, 1919:217

Type species: *Spinibarbus hollandi* Oshima

70. *Acheilognathus mesembrinum* Jordan and Evermann, 1902:323, fig. 6

= *Metzia mesembrinum* (Jordan and Evermann)

Holotype: SU 7130 (89 TL), Kotosho [in error, Suwata, Suao], Formosa, coll. T. Tada.

Paratype: SU 7151 (2), same as holotype.

Remark. The figured specimen is labeled as “type” and has been determined to be holotype. This species is an endemic species and thought to be extinct in Taiwan. Jordan and Evermann (1902) described this species based on specimens collected from Kotosho, a small island named Lanyu or Orchid Island in SE Taiwan. Chen and Feng (2002) found those specimens were labeled as Suwata [now Suao] in northeastern Taiwan, and concluded that the original locality was a mistake.

71. *Achilognathus himantegus* Günther, 1868:277

= *Tanakia himantegus* (Günther)

Syntype: BMNH 1865.5.2.54–58 (5, females), Island of Formosa, from Consul Swinhoe’s collection.

Remark. Günther (1868) mentioned that there are four 3–inch–long specimens. However, we found that there are actually five specimens in the same jar. The catalog number was registered subsequently.

72. *Acrossocheilus invirgatus* Oshima, 1920a:123, pl.5, fig. 2

= *Acrossocheilus paradoxus* (Günther)

Holotype: ANSP 49946 (160 TL), Buraku River, Ako [Ping–tong, S. Taiwan], 2 Feb. 1919, coll. E. Matsuda.

73. *Barbus paradoxus* Günther, 1868:97

= *Acrossocheilus paradoxus* (Günther)

Syntype: BMNH 1865.5.2. 20–23 (4, females), Formosa, from Consul R. Swinhoe's collection.

Remark. This is an endemic species from Taiwan. The catalog number was registered subsequently.

74. *Barbus schlegelii* Günther, 1868:135

= *Hemibarbus labeo* (Pallas)



FIGURE 1. Syntype of *Barbus schlegelii* Günther, 1868, BMNH 1865.5.2.14, 182 mm SL.

Syntype: BMNH 1865.5.2.14 (1, 182 SL) and BMNH 1865.5.2.59 (1, 156 SL), Formosa, from Consul Swinhoe's collection.

Remark. The catalog numbers were registered subsequently. Two syntypes were relocated and confirmed as a junior synonym of *H. labeo*.

75. *Candidia pingtungensis* Chen, Wu & Hsu, 2008: 208, figs. 3b, 6

Holotype: NTOUP–2007–07–21–1 (79.8 SL), Fongkang River, Pingtung County, 19. Jul. 2003, coll. J.–H. Wu.

Paratype: NTOUP–2007–07–021–2 (11, 48.7–65.4 SL); NTOUP–2007–07–024 (11, 49.5–94.9 SL); same as holotype; NTOUP–2007–07–010 (26, 50.6–114.3 SL), Szuchung River, Pingtung County, 19 Jul. 2003, coll. J.–H. Wu; NTOUP–2007–07–049 (5, 46.5–54.8 SL), Linbien River, Pingtung County, 5 Jul. 2003, coll. J.–H. Wu; NTOUP–2007–07–050 (10, 47.0–64.3 SL), Fansang River, Pingtung County, 25 Nov. 2003, coll. J.–H. Wu; NTOUP–2007–07–051 (1, 67.7 SL), Fongkang River, Pingtung County, 5 Apr. 2003, coll. J.–H. Wu; NTOUP–2007–07–052 (3, 55.2–79.1 SL), Kinlun River, Taitung County, 21 May 2003, coll. Y.–M. Ju.

76. *Chanodichthys macrops* Günther, 1868:326

= *Sinibrama macrops* (Günther)

Lectotype: BMNH 1865.5.2.15, Formosa, from Consul Swinhoe's collection.

Paralectotype: BMNH 1865.5.2.16–19 (4), data as lectotype.

Remark. The catalog numbers were registered subsequently. Lectotype was designated by Banarescu (1970).

77. *Cirrhinus melanostigma* Fowler and Bean, 1922:4

= *Cirrhinus molitorella* (Valenciennes)

Lectotype: USNM 84168 (190 TL), Koroton, Formosa [Taichong, central Taiwan], 1–15 Sep. 1907, coll. Hans Sauter.

Paralectotype: USNM 84168 (2, 180–185 TL), same data as holotype.

Remark. In the original description, Fowler and Bean (1922) mentioned the largest specimen as the type and two smaller specimens as paratypes. Banarescu (1972) designated the former as lectotype.

78. *Culter aokii* Oshima, 1919:250, pl.52, fig. 1

= *Cultrichthys erythropterus* (Basilewsky)

Lectotype: FMNH 59110 (formly CM 8248) (280 TL), from Jitsugetsutan [Lake Candidus], Aug. 1916, coll. T. Aoki.

Paralectotype: SU 23057 (1), Jitsugetsutan [Lake Candidus], Formosa, probably in 1916, sent by M. Oshima.

Remark. The 280-TL specimen used in the original description was designated as the lectotype by Eschmeyer (1998). Data for two additional specimens was also provided in the original description, and one of these (SU 23057) was relocated by us.

79. *Culter brevicauda* Günther, 1868:329

= *Culter alburnus* Basilewsky

Lectotype: BMNH 1865.10.29.29, Formosa, from Consul Swinhoe's collection.

Paralectotype: BMNH 1865.10.29.30–31 (2); BMNH 1865.10.29.32 (1), data as lectotype.

Remark. The catalog numbers were registered subsequently. Lectotype designated by Banareescu (1971).

80. *Cultricuslus akoensis* Oshima, 1920a:132, pl.3, fig. 4

= *Hemiculter leucisculus* (Basilewsky, 1855)

Holotype: ANSP 49953 (93 TL), Ako [Ping-tung], coll. Eiji Mastusda.

81. *Erythroculter macrophthalmus* Berg, 1934:265

= *Sinibrama macrops* (Günther)

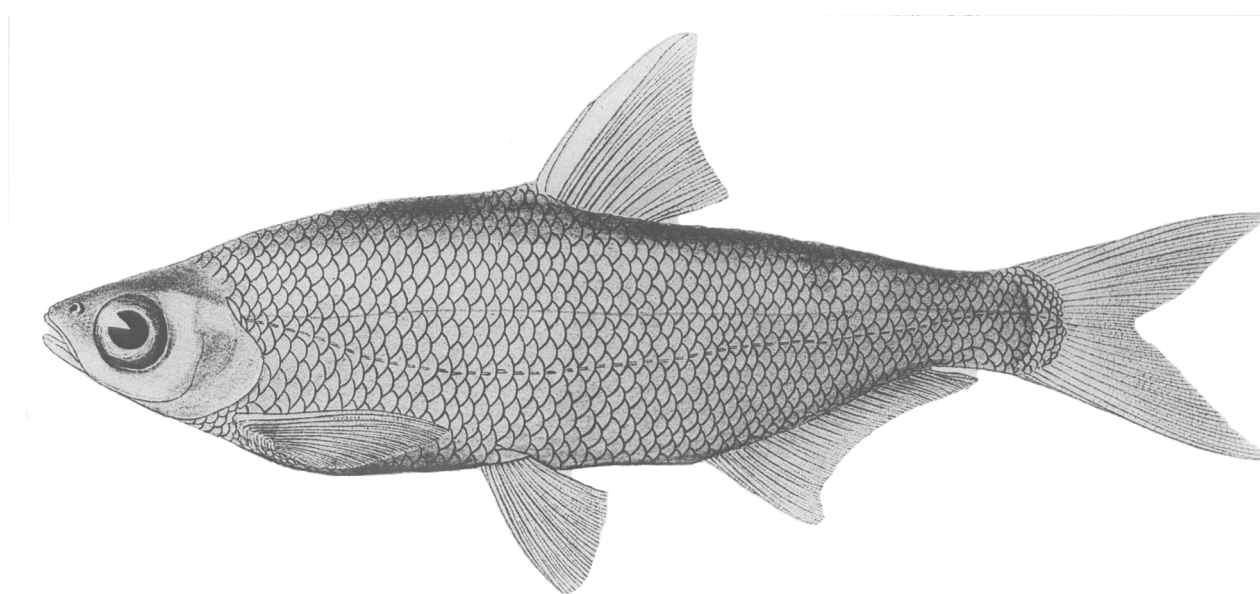


FIGURE 2. A drawing of *Culter recurviceps*, the figure that *Erythroculter macrophthalmus* Berg, 1934 was based. After Tanaka (1928).

Holotype: ZUMT 18120 (192 TL), Taihoku [Taipei], Formosa, coll. S. Takahashi.

Remark. This species was described based on a figure and data of *Culter recurviceps* provided by Tanaka (1928) on the basis of a single specimen (ZUMT 18120) collected from Taiwan. The data, figure and common name provided by Tanaka (1928, also Fig. 2 in present work) show clearly that this specimen is *Sinibrama macrops*. The holotype is lost.

82. *Gnathopogon ijimae* Oshima, 1919:219, pl.51, fig. 2

= *Squalidus ijimae* (Oshima)

Holotype: FMNH 59096 (formerly CM 8234) (79 TL), Tozen River [Shin-chu County], Dec. 1916, coll. T. Aoki.

83. *Gobiobotia cheni* Banareescu and Nalbant, 1966:13, Pl.2, Fig. 8–10

Holotype: IBTS 1334 (75.0), rivers near Taichung, Taiwan, received from Prof. J. T. Chen.

Paratype: IBTS 1541–3 (3, 66.2–76.0), same as holotype.

84. *Gobiobotia intermedia intermedia* Banareescu and Nalbant, 1968: 336, Figs.1,3

= *Gobiobotia intermedia* Banareescu and Nalbant

Holotype: USNM 200245 (48.0), irrigation ditch near Ping Tung, Ping Tung Hsien, Taiwan, 25 January, 1962, coll. R. Kuntz and W. Wells.

Paratype: USNM 202593 (5, 41.0–51.0), out of USNM 200245.

85. *Gymnostomus barbatulus* Pellegrin, 1908:263

= *Onychostoma barbatula* (Pellegrin)

Holotype: MNHN 1908–0169 (210 TL), Lake Candidius, coll. Hans Sauter.

86. *Gymnostomus formosanus* Regan, 1908a:149

= *Acrossocheilus paradoxus* (Günther)

Syntype: BMNH, 1908.5.27.6–10 (5), Lake Candidius, Formosa, coll. Hans Sauter.

Remark. Originally 8 specimens were indicated in the collection, but only 5 remain in the lot.

87. *Gymnostomus labiatus* Regan, 1908b:358

= *Acrossocheilus paradoxus* (Günther)

Holotype: BMNH 1909.4.28.26 (137 TL), Lake Candidius, Formosa, coll. A. Moltrecht.

88. *Ischikavia macrolepis* Regan, 1908a:150

= *Metzia mesembrinum* (Jordan and Evermann)

Lectotype: BMNH 1908.5.27.3 (60 TL), Kagi [Chiayi], Formosa, coll. Hans Sauter.

Paralectotype: BMNH 1908.5.27.4–5 (2), collected with lectotype.

Remark. Lectotype designated by Chen and Fang (2000).

89. *Labeo jordani* Oshima, 1919:204, pl.48, fig. 3

= *Cirrhinus molitorella* (Valenciennes)

Holotype: FMNH 59089 (formerly CM 8226) (340 TL), Hatchery at Shori.

Paratype: SU 18302 (1), Shori, sent by M. Oshima.

Remark. This species was introduced from China. The 340 mm TL specimen used in the original was designated as lectotype by Eschmeyer (1998). Data from two additional specimens was provided in the original description, and one specimen (SU 18302) designated as paralectotype was relocated by us.

90. *Leucisculus fuscus* Oshima, 1920a:129, pl.5, fig. 1

= *Mylopharyngodon piceus* (Richardson)

Holotype: ANSP 49950 (230 TL), Ako [Pingtung], Jun. 1917, coll. Eiji Matsuda.

91. *Microphysogobio brevirostris alticarpus* Banareescu and Nalbant, 1968:341

= *Microphysogobio alticarpus* Banareescu and Nalbant

Holotype: USNM 192926 (63.0), small stream and roadside ditch near Chia-I-Hsien (Chia-yi), western coastal plain of Taiwan Agriculture area, Mar. 1961, coll. R. Kuntz and W. Wells.

Paratype: USNM 202592 (out of USNM 192926, 66, 36.0–60.7 SL), collected with holotype.

92. *Opsariichthys barbatus* Regan, 1908b:359

Syntype: BMNH 1909.4.28.30–33 (4, males, 98–160 TL), Lake Candidius, Formosa, coll. A. Moltrecht.

93. *Opsariichthys kaopingensis* Chen & Wu, 2009:172

Holotype: NMMBP 6965 (76.2), Kaoping River, Pingtung County, Taiwan, 24 Feb. 2002, coll. J.–H. Wu.

Paratypes: ASIZP 062619 (5, 52.9–64.0), Linbien River, Pingtung County, Taiwan, 11 Apr. 2003, coll. J.–H. Wu; ASIZP 062620 (5, 47.0–74.0), Fansan River, Pingtung County, Taiwan, 11 Apr. 2003, coll. J.–H. Wu; NMMBP 2050 (13, 61.6–86.0), Fongkan River, Pingtung County, Taiwan, May 2000, coll. I.–S. Chen; NMMBP 2051 (2, 72.5–84.8), Fongkan River, Pingtung County, Taiwan, Aug. 2000, coll. I.–S. Chen; NMMBP 2911 (8, 58.0–72.0), Kaoping River, Pingtung County, Taiwan, 24 Feb. 2002, coll. J.–H. Wu; NMMBP 3000 (16, 56.8–77.1), Fongkan River, Pingtung County, Taiwan, 5 Apr. 2003, coll. C.W. Wang; NMMBP 3952 (2, 59.2–65.8), Linbien River, Pingtung County, Taiwan, 1 Aug. 2002, coll. I.–S. Chen; NMMBP 6061 (16, 50.1–64.0), Kaoping River, Pingtung County, Taiwan, 27 Mar. 2003, coll. J.–H. Wu; NMMBP 6062 (1, 42.6), Tongkong River, Pingtung County, Taiwan, 11 Apr. 2003, coll. J.–H. Wu; NMMBP 6063 (16, 46.3–77.7), Linbien River, Pingtung County, Taiwan, 11 Apr. 2003, coll. J.–H. Wu; NMMBP 6064 (2, 63.8–64.3), Fansan River, Pingtung County, Taiwan, 11 Apr. 2003, coll. J.–H. Wu; NMMBP 6066 (15, 50.0–72.1), Szuchung River, Pingtung County, Taiwan, 5 Apr. 2003, coll. C.W. Wang; NMMBP 6067 (16, 55.3–113.7), Kankou River, Pingtung County, Taiwan, 5 Apr. 2003, coll. C.W. Wang.

94. *Opsariichthys pachycephalus* Günther, 1868:296

Syntype: BMNH 1865.5.2.31–34 (4) and BMNH 1865.5.2.60 (1), Formosa, from Consul Swinhoe's collection.

Remark. The catalog numbers were registered subsequently.

95. *Lissochilichthys matsudai* Oshima, 1920:124, pl.3, fig. 2

= *Acrossocheilus paradoxus* (Günther)

Lectotype: ANSP 49947 (72 TL), Kunanau River, Ako [Pingtung], 2 Jan. 1919, collected by Eiji Matsuda.

Paralectotype: unknown (2 of 9, 77–116 TL) collected from Kimanian River.

Remark. ANSP 49947 referred to as the holotype by Böhlke (1984) is selected as the lectotype herein. Oshima (1920) mentioned that there are 9 paratypes collected from Tamusui River at Shinten; Shishitom at Nanto; Dakusui River at Nusha; and Suisha River at Fumpo. These specimens were not registered to any institute. Although there are several lots of *Acrossocheilus formosanus* (= *A. paradoxus*) in CAS sent by Oshima, none of them was collected from same localities mentioned above. The paralectotype series is believed to be lost.

96. *Pararasbora moltrechti* Regan, 1908b:360

Syntype: BMNH 1909.4.28.24–25 (2, 54–68 TL), Lake Candidius, Formosa, coll. A. Moltrecht.

97. *Phoxiscus kikuchii* Oshima, 1919:226, pl.51, fig. 3

= *Aphyocypris kikuchii* (Oshima)

Holotype: FMNH 59099 (formerly CM 8237) (60 TL), Bokusekikaku [Hua-lan], coll. Yonetaro Kikuchi.

98. *Pseudogobio brevirostris* Günther, 1868:174

= *Microphysogobio brevirostris* (Günther)

Lectotype: BMNH 1865.5.2.49, Formosa, from Consul Swinhoe's collection.

Paralectotype: BMNH 1865.5.2.50–53 (4); ZMB 6305 (1).

Remark. The catalog numbers were registered subsequently. Lectotype designated by Banarescu and Nalbant (1966). Dr. Peter Bartsch (ZMB, pers. comm., 24 Oct. 2008) kindly informed us that one paratype (ZMB 6305) is present in the collection.

99. *Puntius snyderi* Oshima, 1919:216, pl.50, fig. 2

Lectotype: FMNH 59093 (formly CM 8231) (77 TL), Rigiyokutsu, Nanto, Dec. 1916, coll. T. Aoki.

Paralectotype: SU 23079 (1), Maruyama near Taihoku; SU 23134 (3), Daito River [Da-du River]; SU 23143 (1) Rigiyokutsu, Nanto; all sent by M. Oshima.

Remark. The lectotype was designated by Eschmeyer (1998).

100. *Rasborinus formosae* Oshima, 1920a:131, pl.3, fig. 1

= *Metzia formosae* (Oshima)

Lectotype: ANSP 49952 (88 TL), a small pong near Manka, Taihoku, Jun. 1919, coll. T. Aoki.

Paralectotype: unknown (2, 75–79 TL), same data as holotype.

Remark. ANSP 49952 referred to as the holotype by Böhlke (1984) is selected as lectotype herein. Two paratypes mentioned were not found by us.

101. *Rasborinus takakii* Oshima, 1920a:130, pl.3, fig. 2

= *Metzia messembrinum* (Jordan and Evermann)

Holotype: ANSP 49951 (63 TL), Ako [Pingtung], coll. Eiji Matsuda.

Paratype: unknown (2, 54–125 TL), collected from Ako and one specimen collected from Rinraku.

Remark. ANSP 49951 referred to as the holotype by Böhlke (1984) is selected as the lectotype herein. Two paralectotypes were not registered to any institute and are probably lost.

102. *Scaphiodontella alticorpus* Oshima, 1920a:126, pl.4, fig. 1

= *Onychostoma alticorpus* (Oshima)

Lectotype: ANSP 49948 (220 TL), Burako River, Ako [Pingtung], 2 Feb. 1919, coll. Eiji Matsuda.

Paralectotype: unknown (1, 138 TL), collected from Kwaren River at Kado, Kwarehho.

Remark. ANSP 49948 referred to as the holotype by Böhlke (1984) is selected as the lectotype herein. The paralectotype was not registered to any institute and is probably lost.

103. *Scaphesthes tamusuiensis* Oshima, 1919:209, pl.50, fig. 1

= *Scaphesthes barbatulus* (Pellegrin)

Lectotype: FMNH 59091 [formly CM 8228] (230 TL), Tamsui [Tamsui] River, near Shinten, Dec. 1916, coll. T. Aoki.

Paralectotype: SU 23013 (3), Tamsui [Tamsui] River near Shinten [one partially stained]; SU 23058 (1), Choso River, coll. M. Oshima; SU 23117–8 (2), Giran, coll. M. Oshima.

Remark. The original description was based on a 230–mm TL specimen which was designated as a lectotype by Eschmeyer (1998). Data from six additional specimens was provided in the original description, including 3 collected from Tamsui River, 1 from Choso River, 1 from Giran, 1 from Heirinbi, and 2 from Taishu. Although these localities were not exactly the same as those provided in the data sheet, we believe those specimens were the type series.

104. *Spinibarbus elongatus* Oshima, 1920a:127, pl.4, fig. 2

= *Spinibarbus hollandi* Oshima



FIGURE 3. Holotype of *Spinibarbus elongatus* Oshima, 1920, ANSP 49949, 233 mm TL.

Holotype: ANSP 49949 (233 TL), Buraku River, Ako [Pingtung], 2 Feb. 1919, coll. Eiji Matsuda.

Remark. Based on our examination, this species is junior synonym of *Spinibarbus hollandi*.

105. *Spinibarbus hollandi* Oshima, 1919:218, pl. 50, fig. 3 & pl. 51

Lectotype: FMNH 59095 (formly CM 8233) (340 TL), Sobun River near Tabani [Yujing, Tainan], Dec. 1916, coll. T. Aoki.

Paralectotype: SU 23060 (1), same as holotype, sent by M. Oshima.

Remark. Oshima (1919) mentioned that there were four specimens collected from the same locality. The original description was based on a 340-mm TL specimen which was designated as a lectotype by Eschmeyer (1998). Data from two additional specimens was provided, and one paralectotype (SU 23060) was relocated by us.

106. *Squalidus banarescui* Chen and Chang, 2007:71, fig. 3

Holotype: NTOU P-2005-07-017 (60.5, male), Wu (Ta-du) River, Taichung County, Taiwan, coll. Y. C. Chang, Jul. 1999.

Paratype: NTOU P-2005-07-018 (11, 36.8-63.0), Wu (Ta-du) River, Taichung County, Taiwan, coll. Y. C. Chang, Jul. 1999.

107. *Zacco evolans* Jordan and Evermann, 1902:322, fig. 5

= *Opsariichthys evolans* (Jordan and Evermann)

Holotype: SU 7129 (TL), Taihoku [Taipei], coll. T. Tada.

Paratype: SU 7271 (1), Formosa; SU 7333 (1), Taihoku [Taipei], coll. Tada.

Remark. The figured specimen is labeled type and evidently has been determined to be the holotype. This species was referred to as a junior synonym of *Zacco platypus* in previous publications. Chen and Chang (2005) and Chen et al. (2008) provided the evidence of the validity of this species.

108. *Zacco taiwanensis* Chen, 1982:296, fig. 2

= *Opsariichthys pachycephalus* Günther

Syntype: IHB 750099 (1), 750101-750106 (6) (74-123 TL), all collected from Lake Candidius.

Cobitidae (106)

109. *Misgurnus anguillicaudatus formosanus* Rendahl, 1936:302

= *Misgurnus anguillicaudatus* (Cantor)

Holotype: NRM 10354 (female, 106 TL), Lake Candidius, 30 Sep. 1907, coll. Hans Sauter.

Paratype: NRM 39641 (out of NRM 10354, 11, 61-79 TL), collected with holotype.

Balitoridae (107)

Formosania Oshima, 1919:194

Type species: *Formosania gilberti* Oshima, 1919

Remark. This name was placed in the synonymy of *Crossostoma* Sauvage, 1878 by previous authors. Novák et al. (2006) noted that *Crossostoma* Sauvage was preoccupied by three different animal groups and used *Formosania* Oshima as an available name.

110. *Crossostoma lacustre* Steindachner, 1908b:110

= *Formosania lacustre* (Steindachner)

Syntype: the same type series with *Homaloptera formosanum* Steindachner, 1908a.

Remark. Because of the preoccupation of *Homaloptera formosana* Boulenger 1894, Steindachner (1908b) gave the present name as a replacement for *Homaloptera formosana* Boulenger, 1894.

111. *Crossostoma tengi* Watanabe, 1983:111, figs. 5, 6b, 7b

= *Formosania lacustre* Steindachner

Holotype: WIRI 20 (female, 79.0), Kaochung, Kaoshiung County, Taiwan.

Paratype: WIRI 18–19 (2); WIRI 88 (1); WIRI 147–148 (2); WIRI 150 (1); WIRI 153 (1); WIRI 156 (1); WIRI 164–65 (2); all collected from Taiwan.

112. *Homaloptera formosana* Boulenger 1894:463

= *Hemimyzon formosanus* (Boulenger)

Holotype: BMNH 1894.11.14.11 (90 TL), central Formosa.

Remark. This is an endemic species from Taiwan. Novák et al. (2006) wrongly put this species in the synonymy of *Formosania lacustre*. Chen & Fang (2009) recognized it as a valid species.

113. *Homaloptera formosanum* Steindachner, 1908a:86

= *Formosania lacustre* Steindachner

Syntype: NMV 47138 (3); NMV 48680 (3); NMV 48682 (3); NMV 48683 (3); NMV 48690 (4); all collected from Lake Candidus.

Remark. This name was preoccupied by *Homaloptera formosana* Boulenger, 1894 and replaced by *Crossostoma lacustre* Steindachner, 1908.

114. *Formosania gilberti* Oshima, 1919:194, pl.49, fig. 1–2

= *Formosania lacustre* Steindachner

Lectotype: FMNH 59085 (formly CM 8222) (117 TL), Tamsui River near Shinten, coll. Dec. 1916, coll. T. Aoki.

Paralectotype: SU 23120 (1), same as holotype, sent by M. Oshima.

Remark. Lectotype designated by Eschmeyer (1998). Data of two specimens was provided in original description and one was relocated by us.

115. *Hemimyzon taitungensis* Tzeng and Shen, 1982:166, figs. 5–6

Holotype: NTUM 4941 (male, 70), Shin–wu–leu River, Lee–daou, Hai–duan, Taitung County, 1 Apr. 1981, coll. C.–S. Tzeng.

Paratype: NTUM 4963 (1, male, 77); NTUM 4964 (1, male, 59); NTUM 4965 (1, male, 62); NTUM 4966 (1, male, 49); NTUM 4967 (1, male, 62); NTUM 4968 (1, male, 55); NTUM 4969 (1, male, 54); NTUM 4970 (1, male, 54); NTUM 4971 (1, male, 53); NTUM 4972 (1, male, 65); NTUM 4973 (1, female, 62); UBC 81–65 (1, 60); same as holotype.

Remark. This is an endemic species from eastern Taiwan.

116. *Hemimyzon sheni* Chen & Fang, 2009: 186, Figs. 1–2, 4

Holotype. NTOU P–2007–07–077 (50.1), small tributary, 3 kilometers south of Yi–Ting mountain, upper reaches of Tar–Ju River, Tar–Ren Village, Yaitung County, SE Taiwan, coll. S.–H. Chen, 11 Jul. 1993.

Paratypes. NTOU P–2007–07–078 (2, 11.2–30.6), same as holotype.

117. *Homaloptera taiwanica* Kishinouye, 1905:176

= *Hemimyzon formosanus* (Boulenger)

No type known.

Remark. The original description was based on salt preserved specimens, no type catalog number was provided by Kishinouye (1905).

118. *Sinogastromyzon nantaiensis* Chen, Han and Fang, 2002:240, figs. 1–2

Holotype: NMMBP 465 (44.7), Laonon River, Kaoping basin, Darjin, Liukuei, Pingtung County, Taiwan, Aug. 1994, coll. I.–S. Chen.

Paratype: NMMBP 466 (3, 36.8–40.3), same data as holotype; NMMBP 467 (7, 33.4–44.2), Laonon River, Kaoping basin, Tsaolan, Liukuei, Pingtung County, S Taiwan, Feb. 1995, coll. I.–S. Chen et al.; NMMBP 468 (2, 29.8–35.6), Nanhaur River, Tzengwen River, Peiliao, Tainan County, Taiwan, 29 Oct. 1999, coll. I.–S. Chen and R.–S. Wu.

119. *Sinogastromyzon puliensis* Liang, 1974:153, figs. 13, 14

Holotype: THUP 50280 (50), Ta–tu–chi, Pu–lo, [Da–do (Wu) River, Puli], Taiwan.

Remark. The holotype could not be relocated in the collection of NMMBP and is believed to be lost.

Amblycipitidae (135)

120. *Liobagrus formosanus* Regan, 1908b:360

Holotype: BMNH 1909.4.28.23 (37 TL), Lake Candidius, Formosa, coll. A. Moltrecht.

121. *Liobagrus nantoensis* Oshima, 1919:183, pl.48, fig. 3

= *Liobagrus formosanus* Regan

Lectotype: FMNH 59080 (formly CM 8217) (88 TL), Dainansho, Nanto, Dec. 1916, coll. T. Aoki.

Paralectotype: SU 23132 (1), same as holotype, sent by M. Oshima.

Remark. This species is treated as a junior synonym of *Liobagrus formosanus* in Taiwan (Chen and Fang, 1996).

The original description was based on an 88–mm TL specimen which was designated as a lectotype by

Eschmeyer (1998). Data from two additional specimens were provided. One paralectotype was relocated by us.

Clariidae (152)

122. *Clarias sauteri* Regan, 1908a:151

= *Clarias fuscus* (Lacepède)



FIGURE 4. *Clarias sauteri* Regan, 1908, syntype, BMNH 1908.5.27.16–22, 2 of 7. A. Lateral view. B. Dorsal view.

Syntype: BMNH, 1908.5.27.16–22 (7, 120–200 TL), Kagi [Chia-yi], Formosa, coll. Hans Sauter.

Remark. This species is considered as junior synonym of *C. fuscus* based on our examination.

Bagridae (159)

123. *Pseudobagrus adiposalis* Oshima, 1919:181, pl.48, fig. 2

Lectotype: FMNH 59079 (formly CM 8216) (172 TL), Tamsui River near Shinten, Dec. 1916, coll. T. Aoki.

Paralectotype: SU 23176 (4), same as holotype; SU 23009 (1), Sobun River; SU 23122 (1), Heirinbi; all probably coll. T. Aoki in 1916, sent by M. Oshima.

Remark. Original description was based on a 172-mm TL specimen which was designated as lectotype by Eschmeyer (1998). Data from seven additional specimens were provided and three lots of paralectotypes were relocated by us.

124. *Pseudobagrus brevianalis brevianalis* Regan, 1908a:151

Syntype: BMNH 1908.5.27.23–28 (6, up to 115 TL), Lake Candidius, Formosa, coll. Hans Sauter.

Remark. Watanabe et al. (2007) provided molecular evidence to suggest that the present species is a group of local populations of *P. ussuriensis*. It was sometimes divided into two subspecies in Taiwan. Also see remark of next species.

125. *Pseudobagrus brevianalis taiwanensis* Oshima, 1919:180, pl.48, fig. 1

Holotype: FMNH 59078 (formly CM 8215) (152 TL), Tozen River near Taichu, Dec. 1916, coll. T. Aoki.

Paratype: SU 23128 (2), Shinchiku; SU 23124 (3), Taito River; probably coll. by T. Aoki and sent by M. Oshima.

Remark. The original description was based on a 152-mm TL specimen which was designated as a lectotype by Eschmeyer (1998). Data from three additional specimens were also provided in Oshima (1919). One jar, SU 23124, contains three specimens collected from Daito [Da-do] River and were mislabeled as *P. adiposalis*. Based on Oshima (1919), only specimens of *P. taiwanensis* were collected from Daito River. These three specimens were recently reidentified as *P. adiposalis* by K. Watanabe (Ho, 2008, pers. obser.). There is an additional jar of *P. brevianalis* (SU 23102) collected from Dainansho that is likely mislabeled as *P. taiwanensis*. Based on Oshima (1919), only one specimen of *P. brevianalis* was collected from Dainansho among his specimens of *Pseudobagrus* spp. The collecting data and determination were changed accordingly.

This species was considered as a valid subspecies of *P. brevianalis* (*sense* Chen and Fang, 1999).

Although Ferraris (2007) considered this species to be valid at the species level, Watanabe et al. (2007) argued that there was no evidence for the validity of the present species.

Salangidae (172)

126. *Salanx acuticeps* Regan, 1908b:360

Syntype: BMNH 1909.4.28.35–36 (2, 115–115 TL), Lake Candidius, Formosa, coll. Hans Sauter.

Remark. This species is an endemic species and is believed to be extinct.

Salmonidae (175)

127. *Salmo saramao* Jordan and Oshima, 1919a:14, figs. a,b

= *Oncorhynchus formosanus* (Jordan and Oshima)

Lectotype: SU 20354 (1, 146), pond at Saramao Police Station, Musha, Taiko River, Nanto, 15 Mar. 1919, coll. Nagasaki.

Paralectotype: unknown, a full grown male, collected from Taiko River between Shikayabu and Saramao, Nanto Pref in October 18, 1918 by Tsuzaki (Jordan and Oshima, 1919a).

Remark. Technically, *Salmo saramao* is a senior synonym of *Salmo formosanus* Jordan and Oshima. However, the present name is considered as a forgotten name, predating *Salmo formosanus* Jordan and Oshima, 1919. One of two syntypes, a full grown male, collected from Taiko River between Shikayabu and Saramao is apparently lost. Only the syntype, SU 23054, is now present in CAS collection. We herein selected this specimen as lectotype.

128. *Salmo formosanus* Jordan and Oshima, 1919b:122

= *Oncorhynchus masou formosanus* (Jordan and Oshima)

Holotype: Mus. Inst. Sci. Gov't. Formosa, Taiko R. at Saramao, Nanto, Taiwan, [not seen by us].

Remark. Original type is apparently lost. Ho and Gwo (2010) suggested the continuous usage of *formosanus* by suppressing the senior synonym *saramao* (Case 3526, ICZN).

Stomiidae (182)

129. *Astronesthes formosana* Liao, Chen and Shao, 2006: 519, figs. 3, 4, 5

Holotype: ASIZP 63353 (1, 85), Tungkang, SW Taiwan, commercial midwater trawl, 20 Feb. 2004.

Paratypes: ASIZP 63340 (1, 78), 23 Nov. 1997; ASIZP 63349 (1, 84), 20 Nov. 2003; ASIZP 63351 (1, 81), 15 Jan. 2004; ASIZP 63354 (8, 50–95), 24 Mar. 2004; collected by commercial midwater trawl off Tungkang, SW Taiwan; ASIZP 63341 (1, 62), station CD 124, R/V OR 1, cruise 619, SW Taiwan, from 24°58.85'N, 122 17.59'E to 25°02.73'N, 122°21.60'E; 1165–1129 m, otter trawl, 1 Aug. 2001; ASIZP 63343 (1, 61), Tashi, NE Taiwan, commercial bottom trawl, 4 Oct. 2001; ASIZP 63345 (1, 36), IK 224, R/V OR 1, cruise 692, E Taiwan, from 23°34.141'N, 121°37.037'E to 23°36.595'N, 121°37.67'E, 450 m wire out, IKMT, 30 Aug. 2003.

Aulopidae (185)

130. *Aulopus formosanus* Lee and Chao, 1994:212, fig. 1–2

Holotype: ASIZP 56190 (male, 169.4), Kaohsiung, 13 Aug. 1987.

Paratype: ASIZP 56153 (1, male, 138), Kaohsiung, 13 mar. 1987; ASIZP 56142 (1, female, 190.9), Kaohsiung, Apr. 1987.

Remark. There were also uncataloged specimens (16 males and 14 females) used for the description.

Synodontidae (187)

131. *Synodus orientalis* Randall and Pyle, 2008:659, figs. 4–5

Holotype: ASIZP 64387 (female, 205.5), southwestern Taiwan off Hobihu, 80 m, 14 Arp. 2004.

Other type: 1 paratype.

132. *Synodus taiwanensis* Chen, Ho and Shao, 2007:149, figs.1–2

Holotype: ASIZP 64389 (185.0), female, Off Hobihu, southwestern Taiwan, ca.80 m, 14 Apr. 2004.

Paratype: ASIZP 64390 (1, 195.0), female, off Hobihu, southeastern Taiwan, ca.80 m, 11 Oct. 2004; NMMBP 7890 (1, 186.0), female, off Hobihu, southeastern Taiwan, ca.80 m, 15 Aug. 2002.

Bregmacerotidae (213)

133. *Bregmaceros lanceolatus* Shen, 1960:67, figs.1–5

Neotype: NTUM 7500 (82), Tung–Kang, trawlers, 17 Oct. 1987.

Remark. The holotype (IFB [TFRI] 1002, 115 TL) and 28 paratypes collected with the holotype have been lost, and a neotype was designated by Shen and Wang (1991).

134. *Bregmaceros pescadorus* Shen, 1960:71, fig. 7–8

Neotype: NTUM 7509 (44), Tung–Kang, trawlers, 17 Oct. 1987.

Remark. The holotype (IFB [TFRI] 101, 43.1 TL) and two paratypes collected with the holotype have been lost, and a neotype designated by Shen and Wang (1991).

135. *Bregmaceros pseudolanceolatus* Torii, Javonillo and Ozawa 2004:110, figs. 2B, 3B, 4B, 5B, 7

Paratype: NTUM 8692 (out of NTUM 7502, 1, 71.2), Tung–kang, Taiwan, 17 Oct. 1987.

Other type: URM–P29229 (holotype) and 25 paratypes.

Remarks. Torii et al. (2004) mentioned that some paratypes of this species had been misidentified as *B. lanceolatus* by Shen (1960) and Shen and Wang (1991).

Macrouridae (215)

136. *Coelorinchus cingulatus* Gilbert and Hubbs, 1920:480, fig. 15

Holotype: USNM 78221 (136 TL), Albatross Station D5317, [21°36'00"N, 117°27'00"E,] Vicinity Formosa, China Sea, [421 m, 5 Nov. 968].

Other type: 1 paratype.

137. *Coelorinchus fuscigulus* Iwamoto, Ho & Shao, 2009:40, Figs. 1A–E, 2A–B

Holotype: ASIZP 70169 (322 TL), 24.94°N, 121.9°E, Tashi, Yilan, northeastern Taiwan, coll. H.–C. Ho, 23 May 2007.

Paratypes: ASIZP 63193 (1, 228 TL) and CAS 224492 [ex. ASIZP 63193] (1, 190 TL), 25.75°N, 123.48°E, Diaoyutai Archipelago, Yilan, Taiwan, coll. H.–C. Ho, 24 Apr. 2004. ASIZP 63249 (1, 233 TL), near holotype locality, 21 Mar. 2004. ASIZP 66922 (1, 286 TL), R/V Ocean Researcher I, st. CP248, 24.8656°N, 122.0411°E, 536 m, 28 Aug. 2004. ASIZP 66973 (1, 293 TL), Nanfangao fish market, coll. H.–C. Ho, 26 Jan. 2007. ASIZP 70168 (1, 301+ TL) and CAS 228337 [ex. ASIZP 70168] (2, 285+–302+ TL), near holotype locality, 29 Jun. 2007. CAS 228338 [ex. CAS 224583, in part] (1, 266 TL), Nanfangao fish market, coll. H.–C. Ho.

138. *Coelorinchus formosanus* Okamura, 1963:37, fig. 1–2

Holotype: FAKU 35856 (240 TL), male, Ta–shi, Formosa, 6 Dec. 1961.

Paratype: FAKU 35857–8 (2, ca.180–210 TL), Kao–hsiung; FAKU 35859–35860 (2), Ta–shi.

139. *Coelorinchus leptorhinus* Chiou, Shao and Iwamoto, 2004a:299

Holotype: ASIZP 61344 (female, 850+ TL, 246 HL), 24°54.63'N, 122°03.49'E, off Tashi, northeastern Taiwan, 400–600 m, beam trawl, 15 Mar. 1999.

Paratype: ASIZP 61345 (1, 420 TL, 124 HL), 24°32.20'N, 122°30.20'E, Nanfanao, 15 Dec. 1999; ASIZP 61346 (10, 142–176 TL, 42.6–52.8 HL), 24°54.63'N, 122°03.49'E, off Tashi, 1 Jan. 2001; ASIZP 61347 (3, 602–682 TL, 162–184 HL), 24°54.63'N, 122°03.49'E, off Tashi, 30 May 2001; CAS 214613 (3, 365–374 TL, 91–106 HL), Tashi, 19 Jul. 2001; CAS 214446 (2, 215–355 TL, 61–90 HL), Suao, 24 Jul. 2001; CAS 215543 (4, 158–220+ TL, 52–62 HL), Tashi, 2002.

140. *Coelorinchus sheni* Chiou, Shao and Iwamoto, 2004b:37

Holotype: ASIZP 61348 (420+ TL, 113 HL), 24°54'63"N, 120°03'49"E, off Tashi, northeastern Taiwan, 400–650 m, 30 May 2001, coll. Trawler Gin–Ton–Long.

Paratype: ASIZP 61232 (1, 937+ TL, 257 HL), 22°20'05"N, 120°12'12" »E, 1 Mar. 1999; CAS 215541 (1, 427 TL, 110 HL), [off Ta–shi, NE Taiwan], Taiwan, 2002, [coll. M.–L. Chiou, H.–C. Ho].

141. *Ventrifossa nigrodorsalis* Gilbert and Hubbs, 1920:546, fig. 36

Paratype: 149460 (1, 192 TL), [Albatross station D5317, 21°36'00"N, 117°27'00"E, vicinity of Formosa, South China Sea, 421 m, 5 Nov. 1908].

Other types: USNM 83627 (holotype) and 167 paratypes.

Ophidiidae (222)

142. *Brotula formosae* Jordan and Evermann, 1902:364

= *Brotula multibarbata* Temminck and Schlegel

Holotype: ZUMT 359 (482 TL), Formosa.

Remark. The holotype is apparently lost (Kazuo Sakamoto, pers. comm., 24 Oct. 2007).

Bythitidae (223)

Brotulinella Schwarzhans, Møller and Nielsen, 2005:79

Type species: *Brotulinella taiwanensis* Schwarzhans, Møller and Nielsen, 2005

143. *Brotulinella taiwanensis* Schwarzhans, Møller and Nielsen, 2005:80, figs. 4–6

Holotype: USNM 221048 (male, 43), [21°55'15"N, 120°49'45"E, rocky shore just south of Chin-chiao-wan, south end of Taiwan, 0–6 m, 8 May 1968, coll. V. G. Springer and J. Choat].

Paratype: ASIZP 59304 (1, male, 43), Taiwan; BPBM 23339, (1 male, 36 and 1 female, 38), Ch'uan-Fan-Shih, Taiwan, coll. J.E. Randall et al., 16 Jul. 1978; USNM 366695 (1 male, 34 and 1 female, 49), [21°56'48"N, 120°46'24"E, ca. 2 km SW of To-fan-lieh,] SW tip of Taiwan, 0–2 m, 5 May 1968, coll. J. Choat et al.; USNM 374188 (1 male, 51 and 4 females, 31–45), S shore of Taiwan, just S of cut between large outstanding rock and Ch'uan-fan-shih, Taiwan, 5–6 m, 24 Apr. 1968, coll. V.G. Springer et al.; USNM 374189 (1, male, 51), rocky headland NW of swimming beach of Sha Toa, Taiwan, 0–6 m, 5 May 1968, coll. J. H. Choat et al.; USNM 384606 (1, female, 43), collected with holotype; ZMUC P 771468 (1, male, 52), same data as USNM 374189.

Other type: 14 paratypes.

Lophiidae (227)

144. *Lophiodes endoi* Ho and Shao, 2008: 368, figs. 1, 2, 3a, 4a, 5a, 6a

Holotype: ASIZP 63175 (male, 192), 24°53'N, 122°13'E, Nan-fang-ao, Su-ao, northeastern Taiwan, northwestern Pacific, 280–310 m, 9 May 2004, [coll. H-C. Ho].

Paratype: AMS I.43853-001 (2, 240–270); ASIZP 63170 (1, 245), 9 May 2004; ASIZP 63171 (1, 218), 9 May 2004; ASIZP 63176 (1, 200), 9 May 2004; ASIZP 65418 (1, 275), 22 May 2004; ASIZP 65419 (1, 273), 22 May 2004; ASIZP 65423 (1, 249), 30 June 2004; ASIZP 66348 (1, 295), 16 March 2005; all collected from near the type locality. ASIZP 63214 (1, 288), 24 April 2004; ASIZP 63215 (1, 330), 24 April 2004; ASIZP 63275 (1, 165), 27 March 2004; ASIZP 64572 (3, 203–295), 7 July 2004; ASIZP 65424 (1, 350), 13 June 2004; ASIZP 65425 (1, 343), 13 June 2004; ASIZP 65426 (1, 380), 13 June 2004; ASIZP 65427 (1, 320), 30 June 2004; ASIZP 65428 (1, 368), 30 June 2004; ASIZP 65429 (1, 285), 30 June 2004; CAS 223996 (2, 210–235), 7 July 2004; all collected from Ta-shi, Yilan, northeastern Taiwan.

Other type: 18 paratypes.

Ogcocephalidae (233)

145. *Halicmetus nigra* Ho, Endo and Sakamaki, 2008, figs. 1, 4A, 5A

= *Halicmetus niger* Ho, Endo and Sakamaki

Paratype: ASIZP 064601 (7, 37.0–54.2), Nan-fang-ao, northeastern Taiwan, bottom trawl, 280–320 m, 7 July

2004, coll. H.–C. Ho; ASIZP 064603 (2, 49.5–51.2), same data as for ASIZP 064601; AISZP 064604 (5, 42.4–52.5), same data as for AISZP 064601; ASIZP 064421 (1, 44.9), RV OR I, sta. CD210, NE Taiwan, otter trawl, 445 m, 31 May 2003.

Other types: BSKU 44380 (holotype) and 16 paratypes.

Remark. This species name was used in the wrong gender. *Halicmetus niger* is the correct usage.

146. *Halieutopsis margaretae* Ho and Shao, 2007:88, fig. 1–2

Holotype: ASIZP 064424 (38), R/V OR I, sta. CD210, 24°29.00'N, 122°12.80'E, off Su–ao, eastern Taiwan, 445–1185 m, 31 Jan. 2005, coll. K.–T. Shao.

Other types: 4 paratype.

Diceratiidae (238)

147. *Bufoceratias shaoi* Pietsch, Ho and Chen, 2004:100, figs. 1, 3A, 5

Holotype: ASIZP 61796 (female, 101), 24°25'–24°50'N, 122°00'–122°10'E, off northeast coast of Taiwan, bottom trawl, 0–800 m, 1999.

Paratype: ASIZP 59952 (2, female, 56–75), off northeast coast of Taiwan, 24°55'N, 122°04'E, bottom trawl, 0–650 m, 20 March 1998.

Other type: 1 paratype.

Oneirodidae (239)

148. *Oneirodes pietschi* Ho and Shao, 2004:74, figs. 1–3

Holotype: ASIZP 61822 (female, 100), R/V OR I, sta. CD191, 21°22.18'N, 118°11.02'E, off southwest coast of Taiwan, South China Sea, beam trawl, 1631–1635 m, 28 Aug. 2002.

Other type: 2 paratypes.

Remark. A specimen of the present species collected from the Indian Ocean was reported by Ho et al. (2008).

Mugilidae (245)

149. *Mugil anpinensis* Oshima, 1922a:245, pl.11, fig. 1

= *Liza melinoptera* (Valenciennes)

Holotype: FMNH 59143 [ex CM 8281] (188 TL), Anpin near Tainan, coll. M. Watanabe.

Paratype: unknown, four specimens.

Remark: Oshima (1922) mentioned that there were two specimens collected from Anpin near Tainan and from Kwaren River at Kada, Kwarenke. The type specimen was sent to CM and the remaining specimens were not registered to any institution.

150. *Liza formosae* Oshima, 1922a:251, pl.12, fig. 2

= *Valamugil formosae* (Oshima)

Holotype: FMNH 59145 [ex CM 8283] (126 TL), Anpin near Tainan, 6 Nov. 1919, coll. M. Watanabe.

Remark. Thomson (1997) included this species as a junior synonym of *Valamugil seheli*. We follow Chang et al (1999) in considering it as a valid species.

151. *Liza parva* Oshima, 1922a:253, pl.11, fig. 2

= *Chelon macrolepis* (Smith)

Lectotype: FMNH 59146 (formly CM 8284) (70 TL), Anpin near Tainan.

Remark. Oshima (1922) mentioned that there were six specimens collected from Anpin near Tainan and numerous

specimens collected from Toko at the estuary of the Shimo–Tamusui River. Apparently, only the holotype is present which is selected to be the lectotype herein. Thompson (1997) mentioned this species with an uncertain status. Here we follow Liu and Shen (1991) and treat it as a junior synonym of *Chelon macrolepis*.

152. *Liza pescadorensis* Oshima, 1922a:254, pl.12, fig. 1
= *Chelon macrolepis* (Smith)

Lectotype: FMNH 59147 (formly CM 8285) (275 TL), Bako, Pescadores Islands, M5 Jun. 1920, M. Oshima.

Remark: Oshima (1922) mentioned that there were some specimens collected from Bako, Pescadores Islands and Toko. Apparently, only the primary type is present which is selected as the lectotype herein.

153. *Myxus profugus* Mohr, 1927:184, fig. 6
= *Liza affinis* (Günther)

Syntype: ZMB 20287 (2, 83–117 TL), Japan and Taiwan.

Remark. Two syntypes, probably only one was collected from Taiwan. Dr. Peter Bartsch (ZMB, pers. comm., 24 Oct. 2008) kindly informed us that these two type specimens are present in the collection.

Hemiramphidae (254)

154. *Hyporhamphus taiwanensis* Collette and Su, 1986:276, fig. 2D

Holotype: USNM 191155 (143), Keelung River, Shih–lin, Taipei County, 1 Dec. 1969, coll. R. Kuntz and W. Wells.

Paratype: AMNH 20324 (4, 95–131), Tam–sui River, 27 Sep. 1956, Walsh; NTUM 05650 (1, 93.5), Taiwan; USNM 278991 (6, 129–151), collected with holotype; ZUMT 45441–43 (3, 111–147), about 1943; ZUMT 37434 (1, 121), Taiwan.

Remark. This species is endemic to estuaries of northwestern Taiwan and is likely extinct. Two ZUMT lots are not in the collection (Sakamoto, pers. comm., 2007).

Berycidae (281)

155. *Centroberyx rubricaudus* Liu and Shen, 1985:1, figs. 1–4

Holotype: NTUM 06095 (144.5), Chungchou, Kaohsiung, handliners, 26 Nov. 1984.

Paratype: NTUM 06096 (1, 146.1); NTUM 06097 (1, 147); NTUM 06098 (1, 144); same data as holotype.

Holocentridae (282)

156. *Myripristis formosa* Randall and Greenfield, 1996:28, pl. IIIA, figs. 4B, 7

Holotype: ASIZP 56565 (female, 139.5), 24°41'N, 121°45'E, Tashi, NE coast, gill net, 19 Jan. 1990, coll. J.–P. Chen.

Paratype: BPBM 37103 (1, male, 155), Heng–chun fish market, Taiwan, coll. 22 May 1991, coll. K.–T. Shao.

157. *Ostichthys sheni* Chen, Shao and Mok, 1990:258, fig. 14

Holotype: NSYU 792 (119.1), Chungchou, 2 Mar. 1985.

Paratype: NTUM 03682 (1, 64.3), Tung kang, 26 Oct. 1978; THUP 0478 (1, 201.9), Taichi [Ta–shi, Yi–lan, NE Taiwan], 6 Jun. 1960.

Family Zeidae (288)

158. *Zenopsis stabilispinosa* Nakabo, Bray, and Yamada, 2006:91, figs. 1–3A, 4

Paratype: ASIZP 57609 (1), 22°28'12"N, 120°25'48"E, off Donggang, Pintung, Taiwan, 8 Oct. 1985, coll. K.–T. Shao; ASIZP 60011, 24°57'00"N, 121°52'48"E, fish market, Dahsi, Yilan, Taiwan, 10 Aug. 1997, coll. B.–H. Kao.

Other type: FAKU 64803 (holotype) and 7 paratypes.

Centriscidae (299)

159. *Centriscus capito* Oshima, 1922:263, pl.3, fig. 3

= *Centriscus scutatus* Linnaeus

Lectotype: FMNH 59149 (formly CM 8287) (108 TL), Toko, estuary of the Shimo–Tamusui River, Taiwan.

Paralectotype: unknown, 2 specimens, lost.

Remark: Oshima (1922) mentioned that there were three specimens collected together. However, he only mentioned the type was CM 8287 (now FMNH 59149) and it is selected as the lectotype herein. The two other specimens were not registered in any institute and are probably lost.

Mastacembelidae (302)

160. *Mastacembelus kobayashii* Oshima, 1926:195

= *Sinobdella sinensis* (Bleeker)

Syntype: unknown (2, 142–195 TL), Shiao–li, Hsin–Chu in 7 Aug. 1922, coll. Kobayashi.

Remark. Also described in Oshima (1929). Oshima (1926) mentioned that there were two specimens collected together and the description was based on a 142 TL specimen. Both were not registered to any institute and are probably lost. Based on our examination, this species is very likely a valid subspecies of *Sinobdella sinensis* endemic to Taiwan (also I.–S. Chen, pers. comm., May 2005). However, it is believed to be extinct from Taiwan.

Scorpaenidae (304)

161. *Neomerinthe procurva* Chen, 1981:54, figs. 22, 49

Holotype: CAS 47306 (141.5), off Ta–chi [Tashi, NE] Taiwan, 12 Feb. 1977, coll. L. Chen.

Paratype: CAS 42141 (19, 50–141), collected with the holotype; SDSU 77–7 (1, 89); SIO 80–212 (5, 82–133); SIO 80–223 (2, 101–103); all collected from Ta–chi [Tashi].

162. *Neomerinthe rotunda* Chen, 1981:53, figs. 22, 47

Holotype: CAS 42139 (87.5), off Kaohsiung, [S] Taiwan, 15 Jul. 1978.

Paratype: CAS 42140 (1, 60.8), collected with the holotype; 42155 (1, 81.3), Taiwan Strait, 60 m, Feb. 1972, coll. F. B. Steniner.

163. *Ocosia spinosa* Chen, 1981:41, figs. 4, 28

Holotype: CAS 47296 (65), off Tung–kang, 8 Mar. 1978, coll. C. H. Liu.

164. *Scorpaena pepo* Motomura, Poss and Shao, 2007:36, figs. 1, 2A

Holotype: ASIZP 65020 (male, 244.3), off NE coast of Taiwan, hook and line fishing, ca. 200 m depth; Taipei Fish Market, 19 May 2005, coll. H. Motomura.

Paratypes: AMS I. 43631–001 (1, male, 223.1), same data as for holotype except date, 18 May 2005; ASIZP 65021 (1, female, 245.1), same data as holotype; NTUM 4555 (1, male, 172.9), Nanfangao, Ilan, NE Taiwan, 25 Dec. 1981.

165. *Scorpaenopsis possi* Randall and Eschmeyer, 2001:54, fig. 13, pls. VII, B–D, XII, A–C

Paratypes: ANSP 177970 (formly BPBM 38825, 1, 84.5); ASIZP 60749 (2, 171–174), 21°55'N, 120°50'E, NW shore of first cove on W side of island, N of S tip of island, 0–8 m, coll. V. G. Springer et al.

Other type: BPBM 16770 (holotype) and 70 paratypes.

Remark. The original type series included 3 lots collected from Taiwan. However, their BPBM 23066 was recataloged as ANSP 177971 and was actually a paratype of *S. ramaraoi* (see below). Their BPBM 38825 was recataloged as ANSP 177970.

166. *Scorpaenopsis ramaraoi* Randall and Eschmeyer, 2001:64, Pls. VIII, B, XII, D

Paratype: ANSP 177971 (formly BPBM 23066, 3, 135–148), N shore, Yeh-liu, rocky bottom, 5–10 m, 25 Jun.

1978, coll. J. E. Randall and G. W. Tribble; ASIZP 60750 (1, 124), Formosa Bank, Taiwan Strait, 60 m, trawl, Feb. 1972, coll. F. B. Steiner.

Other type: BPBM 27202 (holotype) and 90 paratypes.

Remark. In the type series, the paratype ASIZP 60749 should be changed to ASIZP 60750.

Aploactinidae (306)

167. *Erisphex simplex* Chen, 1981:44, figs.4, 29

Holotype: CAS 47307 (75), Off Kaohsiung, 3 Nov. 1978, coll. C. H. Liu.

Paratype: CAS 47308 (5, 51–74), collected with the holotype; SIO 80–233 (1, 73), Ta-chi, 12 Nov. 1978, coll. C. H. Liu.

Triglidae (310)

168. *Lepidotrigla oghina* Fowler, 1938:101, fig. 47

Holotype: USNM 98865 (129 TL), Albatross station D.5315, 21°40'N, 116°58'E, vicinity of Formosa, China Sea, 271 m, 5 Nov. 1908.

Remark. The holotype was collected from near Tong-sha Islands, the South China Sea.

Peristediidae (311)

169. *Satyrichthys piercei* Fowler, 1938:125, fig. 60

= *Satyrichthys adeni* (Lloyd)

Holotype: USNM 98877 (151 TL), Albatross station D5316, 21°39'00"N, 117°07'00"E, China Sea, 291 m, 5 Nov. 1908.

Remark. The holotype was collected from near Tong-sha Islands, the South China Sea. Although Richards (1999) recognized this species as valid, Dr. T. Kawai (pers. comm., 4 Jun. 2008) suggested that we should follow Miller (1974) and treat it as a junior synonym of *Satyrichthys adeni*.

170. *Nemaperistedion orientale* Fowler, 1938:127, fig. 61

= *Scalicus orientale* (Fowler)

Paratype: USNM 98917 (178 TL), Albatross station D5317, 21°36'00"N, 117°27'00"E, China Sea, vicinity of Formosa, 421 m, 5 Nov. 1908.

Other type: USNM 98876 (holotype) and 6 paratypes.

Remark. The holotype was collected from off Taiwan near Tong-sha (Pratas) Is.

Platycephalidae (313)

171. *Suggrundus brevirostris* Shao and Chen, 1987:85, fig. 9

= *Thysanophrys celebica* (Bleeker)

Holotype: ASIZP 56060 (65.0), inlet waters of the first Nuclear Power Plant, Gin-shan, Taiwan, 28 Aug. 1986.
Paratype: ASIZP 56059 (5, 44.0–58.1), collected with holotype.

172. *Suggrundus longirostris* Shao and Chen, 1987:83, fig. 17–18

= *Thysanophrys longirostris* (Shao and Chen)

Holotype: ASIZP 56070 (183.9), Ta-shi, Taiwan, 14 Oct. 1985.

Paratype: USNM 303829 (fromly ASIZP 56069, 1, 185.5), collected with holotype.

Serranidae (338)

173. *Cephalopholis formosanus* Tanaka, 1911:24, pl. 7, fig. 22

= *Cephalopholis miniata* (Forsskål)

Holotype: ZUMT 2975 (330 TL), Keelung, Taihoku, Formosa. [in poor condition]

174. *Cephalopholis swanius* Tsai, 1960:188, fig. in text

= *Cephalopholis igarashiensis* Katayama

Holotype: NTUM 2305 (176 TL), Hualien, the eastern coast of Taiwan, Aug. 1955.

175. *Plectranthias chungchowensis* Shen and Lin, 1984:4, fig. 2

= *Plectranthias whiteheadi* Randall

Holotype: NTUM 03721 (98.4), Chungchou, Taiwan, 26 Feb. 1984.

Paratype: NTUM 03724 (1, 101.8), Chungchou, Taiwan, 15 Jul. 1978; NTUM 04463 (1, 72.2), Chungchou, Taiwan, 6 Apr. 1984.

176. *Plectranthias sheni* Chen and Shao, 2002:64, figs.1–2

Holotype: NTUM 03723 (female, 106.7), Chungchou fish market, Kaohsiung, southwestern Taiwan, trawled by fishermen, 26 Feb. 1984.

Paratype: ASIZP 56173 (1, male, 101.2), Chungchou fish market, Kaohsiung, 22 May 1987; NTUM 6425 (1, 84.1), Chungchou fish market, Kaohsiung, 12 Feb. 1986; NTUM 7006 (1, 115.1), Tashi fish market, Ilan county, northeastern Taiwan, 20 May 1986; NTUM 8690 (1, male, 104.2), collected with the holotype.

Pseudochromidae (342)

177. *Cypho zaps* Gill, 2004:20, figs. 8–10

Paratype: ASIZP 57275 (1, 43.4 SL), Ta-Pai-Sha, Greed Island (Lu Tao Island), [E.] Taiwan, 24 Oct. 1993, coll. J.-P. Chen; ASIZP 57276 (2, 28.0–40.8 SL), Lang-Tao, Orchid Island, [E.] Taiwan, 8 May 1993, coll. J.-P. Chen; BMNH 1999.12.30.1 (1, 48.0 SL), Kuein-Wan, Gree Island (Lu Tao Island), 6 m, 29 May 1993, coll. J.-P. Chen; BMNH 1999.12.30.2 (1, 37.7 SL), Orchid Island, [E.] Taiwan, 18 Nov. 1992, coll. J.-P. Chen; SAIAB 34979 (1, 49.5 SL), 22°06'N, 120°45'E, off Houpihu, Kenting National Park, Taiwan, 20 Jan. 1988, coll. P. C. Heemstra; USNM 290945 (1, 51.0 SL), off Ch'uan-fan-shih, Taiwan, 7.5–8 m, 30 Apr. 1968, coll. V. G. Springer et al..

Other type: USNM 291625 (holotype) and 38 paratypes.

Remark. We searched the ASIZ collection and found ASIZP 57275 and ASIZP 57276 were not in the records.

178. *Dampieria melanostigma* Fowler, 1931:16

= *Labracinus cyclophthalmus* (Müller and Troschel)

Paratype: USNM 146420 (1, 163 TL), [Albatross Expedition], Hokuko, Soo Wan Bay, Formosa, [China Sea, 3–9 m], 29 Jan. 1910.

Other type: USNM 89989 (holotype) and 13 paratypes.

179. *Pseudochromis striatus* Gill, Shao and Chen, 1995:79, fig. 1

Paratype: ASIZP 57128 (1, 26.2), Taiwan, Orchid Island, Yeh Yiu, among small crevices in reef over sloping sand bottom, 37 m, 4 Jul. 1994, coll. J.–P. Chen.

Other type: USNM 291616 (holotype) and 1 paratype.

180. *Pseudoplesiops immaculatus* Gill and Edwards, 2002:20, figs.1–2

Paratype: ASIZP 57016 (1, 25.8), Taiwan, coll. J.–P. Chen, 22 Apr. 1994; ASIZP 56991 (1, 19.7), Taiwan, 9 m, coll. J.–P. Chen.

Other type: AMS I. 20757–069 (holotype) and 69 paratypes.

Plesiopidae (344)

Ernogrammoides Chen and Liang, 1948:32

= *Belonepterygion* McCulloch

Type species: *Ernogrammoides fasciatus* Chen and Liang, 1948

181. *Acanthoplesiops psilogaster* Hardy, 1985:384

Holotype: USNM 257872 (22.6), cut between large outstanding rock and Ch'uan–fan–shih, Taiwan, 6 m, 23 Apr. 1968, coll. V. G. Springer et al.

Paratype: BPBM 23296 (2, 17.7–19.1), S end of Ch'uan–fan–shih, Taiwan, 0–6 m, 16 Jul. 1978, coll. J. E. Randall et al; NMNZ P.14813 (1) and USNM 257871 (2, 18.7–20.2, 1 c & s), [21°55'48"N, 120°48'48"E,] SW shore of Ch'uan–fa–shih, Taiwan, 7–8 m, 2 May 1968, coll. V. G. Springer and J. H. Choat; USNM 276528 (1, out of USNM 257872, 17.7), same data as holotype; USNM 25873 (1, 17.7), [21°55'48"N, 120°48'48"E,] SW shore of Ch'uan–fan–shih, Taiwan, 5–6.5 m, 28 Apr. 1968, coll. V. G. Springer et al.

182. *Ernogrammoides fasciatus* Chen and Liang, 1948:32, fig. 1

= *Belonepterygion fasciolatum* (Ogilby)

Holotype: Taiwan Museum 周 [Chow]2, Keelung, Taiwan, Feb. 1948.

Remark. We searched for the type in NTMP collection and it is believed to be lost.

Opistognathidae (346)

183. *Opistognathus variabilis* Smith–Vaniz, 2009:92, Figs. 1e–f, 2e, 3d, 4e–f, 25–43

Paratype: ASIZP 56989 (2 juveniles, 40.1–40.4), 22°4'N 121°34'E, Lan–tao, NE coast of Lan–yu, Orchid (or Botal) Island, sand bottom, depth 18 m, 7 July 1993, coll. J. P. Chen.

Other types: Holotype (NCIP 6348) and 69 paratypes.

184. *Stalix sheni* Smith–Vaniz, 1989:390, fig. 7

Holotype: NTUM 7520 (48.4), 24°45'N, 122°15'E, Tai–chi [Tashi], Taiwan, 80–120 m, 4 Jan, 1988.

Apogonidae (352)

185. *Apogon cheni* Hayashi, 1990:12, fig. 3

Paratype: ASIZP 55978 (1, 130.2), Hou–bi–hu, Kaohsiung [in error, Pingtung], Taiwan, coral reef, hand net, 12 Sep. 1985, coll. K.–T. Shao; ASIZP 55988 (2, 110.2–113.7), Hsiao–liu–chu, Kaohsiung [in error, Pingtung], Taiwan, coral reef, hand net, 20 Jul. 1986, coll. K.–T. Shao.

Other type: YCM P25101 (holotype).

186. *Apogon pleuron* Fraser, 2005:6, figs.1–2

Paratype: ASIZP 60404 (1, 52), between Tashi, Ilan and Fulung, Taipei, Taiwan.

Other type: USNM 35748 (holotype) and 15 paratypes.

187. *Archamia dispilus* Lachner, 1951:586, pl.17, fig. C

= *A. fucata* (Cantor)

Holotype: USNM 112041 (58), [Albatross Expedition], Soo Wan Bay, Formosa, [China Sea, 3–9 m], 29 Jan. 1910.

Paratype: USNM 112077 (5, 53–68), same data with holotype; USNM 112078 (1, 57), [Albatross Expedition],

Kwa Siang Bay, Formosa, [China Sea, 3–8 m], 25 Jan. 1910.

Other type: 9 paratypes.

188. *Archamia goni* Chen and Shao, 1993:782, fig. 1

= *A. bleekeri* (Günther)

Holotype: ASIZP 56613 (50.0), coastal waters off Yungan, southwestern Taiwan, 5 m, muddy sand, 9 Jul. 1991, coll. J. –P. Chen.

Paratype: ASIZP 56614 (5, 48.4–51.7), Tunghsiao Power plant, Tunghsiao, 18 Aug. 1991, coll. P. –H. Kao; ASIZP 56615 (14, 51.4–57.2), Tungkang fish market, 16 Sep. 1991, coll. J. –P. Chen; BPBM 34886 (1, 47.0), collected together with holotype; NTUM 7437 (1, 49.2), same as ASIZP 56614; SAIAB 37317 (1, 57.9), Yungan, Liquefied Natural Gas (LNG) Station at Yungan, 25 Jun. 1991, P. –H. Kao.

Sillaginidae (354)

189. *Sillago aeolus* Jordan and Evermann, 1902:360, fig. 24

Holotype: SU 7135 (133 TL), Keerun, Formosa, coll. T. Tada.

190. *Sillago microps* McKay, 1985:44, fig. d

Holotype: USNM 208326 (out of USNM 177416, 170), Taipei market, Taiwan, 23 Jul. 1957, coll. D. K. Lawless.

Paratype: USNM 208327 (1, 198), same data as holotype.

Malacanthidae (355)

191. *Branchiostegus albus* Dooley, 1978:38, fig. 23

Paratype: USNM 191187 (4, 216–230), [ca.24 50'N, 121 35'E,] Toucheng, [I–Lan Hsien], Taiwan, [1960, coll. R. Kuntz and W. Wells]; NTUM uncat. (1), Tachi, Taiwan, 50 fmm 24 Feb. 1972.

Other type: USNM 71063 (holotype) and 2 paratypes.

Remark. We searched the NTUM collection and found two lots corresponding with the date and locality of the NTUM paratype. However, one is identified as *B. argentatus* (NTUM 6775) and one as *B. japonicus* (NTUM 6769). It is most likely that one of them was the paratype mentioned by the author.

Carangidae (364)

Ulua Jordan and Snyder, 1908:39

Type species: *Ulua richardsoni* Jordan and Snyder, 1908

192. *Caranx (Atule) miyakamii* Wakiya, 1924:201, pl.29, fig. 4

= *Alepes kleinii* (Bloch)

Holotype: FMNH 59407 (formly CM 7742) (119), Formosa.

- 193. *Caranx formosanus*** Jordan and Snyder, 1908:38, pl. LII
= *Carangoides coeruleopinnatus* (Rüppell)
Holotype: FMNH 55364 (formly CM 412) (292 TL), Takao [Kaohsiung], Formosa, coll. Hans Sauter.
Paratype: SU 7283 (1), market at Keerun [Keelung], the port at the northern end of the island, 1908, coll. T. Tada.
Remark. Jordan and Snyder (1908) mentioned that the paratype was referred to *Carangus armatus* in Jordan and Evermann (1902).
- 194. *Caranx oshimai*** Wakiya, 1924:189
= *Caranx sexfasciatus* Quoy and Gaimard
Holotype: FMNH 59492 (formly CM 7731) (123), Formosa.
- 195. *Caranx rastrosus*** Jordan and Snyder, 1908:37, pl. LI
= *Carangoides armatus* (Rüppell)
Lectotype: FMNH 55363 (formly CM 411) (343 TL), Takao, Formosa, coll. Hans Sauter.
Other type: 1 paralectotype.
Remark. Jordan and Snyder (1908) mentioned there is another specimen collected from Cavite, the Philippines. The original description was based on a 13.5-inch specimen, which is selected as lectotype herein.
- 196. *Citula pescadorensis*** Oshima, 1924:1575
= *Carangoides armatus* (Rüppell)
Holotype: a single specimen (126 TL), Bako, Pescadores Islands [Peng-hu] in Jun. 1910.
Paratype: a single specimen (120 TL), collected with the holotype.
Remark. Oshima (1925:395, pl.1, fig. 2) also gave a detailed description for this species [based on the same type specimens] and mentioned another specimen was collected by him in Toko [Ping-tung]. Both type specimens were not registered to any institution and are probably lost.
- 197. *Decapterus dayi*** Wakiya, 1924:158, pl.18, fig. 1
= *Decapterus russelli* (Rüppell)
Holotype: FMNH 59468 (formly CM 7711) (140), Formosa.
- 198. *Scomberoides formosanus*** Oshima, 1924:1572
= *Scomberoides lysan* (Forsskål)
Holotype: unknown (91 TL), Keelung on 18 Aug. 1922.
Remark. Oshima (1925:349, pl.1, fig. 1) also gave a detailed description for this species based on the same type specimen and mentioned that there was another specimen collected by him in Toko [Ping-tung]. The species was preoccupied by *Scomberoides formosanus* Wakiya, 1924 and replaced by *Scomberoides oshimae* Whitley. The only type was not registered to any institution and is probably lost.
- 199. *Scomberoides oshimae*** Whitley, 1951:65
= *Scomberoides lysan* (Forsskål)
Holotype: same as holotype of *Scomberoides formosanus* Oshima, 1924.
Remark. This name is proposed to replace *Scomberoides formosanus* Oshima, 1924.
- 200. *Ulua richardsoni*** Jordan and Snyder, 1908:39, pl. LIII
= *Ulua mentalis* (Cuvier)
Lectotype: FMNH 55365 (formly CM 413) (475 TL), Takao, Formosa, coll. Hans Sauter.
Paralectotype: SU23230, Takao, Formosa, coll. Hans Sauter

Other type: paralectotype, SU 9713, Cavite, the Philippines, 1901.

Remark. Jordan and Snyder (1908) mentioned a cotype [syntype] collected from the same locality and other specimens from Cavite, the Philippines, recognized as *Carangus plumbeus* in Jordan and Seale (1905). The primary type was CM 413 (now FMNH 55365), which is selected as lectotype herein. We searched the CAS collection and found two lots were identical with the original description which should be paralectotypes.

Leiognathidae (366)

201. *Nucchequula mannusella* Chakrabarty and Sparks, 2007:5, fig. 4, 5A

Holotype: AMNH 238753 (85.5), Tungshih Fish Market, 23°27'01"N.120°08'19.3"E, Chiayi County, Taiwan, 22 Mar. 2006, coll. P. Chakrabarty, J. K. H. Chiu, J. S. Sparks.

Paratype: AMNH 238754 (15, 72.1–90.1); AMNH 238755 (16, 62.9–89.7); AMNH 238756 (15, 70.2–94.1); AMNH 238757 (14, 64.8–81.2); AMNH 238758 (20, 77.2–86.9); AMNH 238759 (9, 82.1–95.4); AMNH238760 (13, 75.1–98.5); AMNH 238763 (1, 83.0); AMNH 238764 (1, 88.9); AMNH 238765 (29, 73.6–100.9); AMNH 238762 (1, 53.4); SIO 06.261 (2, 83.7–96.2); data as for holotype. AMNH 238761 (1, 71.2), Taiwan: Hsinchu City: Motorway 3 north from Taichung, one and–one–half hours from Taichung, West Coast Hwy: Fishing Harbor in Hsinchu: 24°50'55.4"N, 120°55'13.6"E; local fisherman, 20 Mar. 2006, coll. P. Chakrabarty, O. J.–D. Lee, J. S. Sparks; ASIZP 62322 (1, 76.2), Taiwan: Fenggang: Pingtung: open sea, at 100 m depth: 22°26'N, 120°38'E, 1 Mar. 2001, coll. J. H. Wu; ASIZP 60823 (1, 90.9), Taiwan: Kaoshiung: Shingda Harbor: open sea: 22°87'N, 120°19'E, 8 Jun. 2000, coll. G. J. Xia.

Lutjanidae (370)

202. *Pinjalo microphthalmus* Lee, 1987:281, pl. 1, fig. 4

= *Pinjalo lewisi* Randall, Allen and Anderson

Holotype: ASIZP 56180 (570), Shiao–liu–chu, Pingtung, Taiwan.

Remark. The type specimen was originally deposited in TFRI and subsequently transferred to ASIZP.

Haemulidae (374)

203. *Plectorhynchus ocyurus* Jordan and Evermann, 1902:348

= *Parapristipom trilineatum* (Thunberg)

Holotype: ZUMT [orig. no.372] (317.5 TL), Formosa.

Remark. The holotype is apparently lost (Kazuo Sakamoto, pers. comm., 24 Oct. 2007).

204. *Pomadasys quadrilineatus* Shen and Lin, 1984:6, fig. 2

Holotype: NTUM 05686 (119.9), Tachi, 8 Dec. 1982.

Paratype: NTUM 01175 (5, 61.8–109.0), Hualien, Aug. 1955; NTUM 05687 (1, 99.2), Chungchou, Kaohsiung, 14 Nov. 1982; NTUM 05688 (1, 91.5), Tachi, 29 Oct. 1977; NTUM 05689 (3, 116.8–133.0), Tachi, 8 Apr. 1978.

Remark. This species was once considered a junior synonym of *P. stridens* and was resurrected by Iwatsuki et al. (1995).

Nemipteridae (376)

205. *Nemipterus aurora* Russell, 1993: 296, fig. 1

Paratype: ASIZP 55804 (1 of 2, male?, 168), [22.01°N, 120.74°E, Heng–chun, Ping–tung, Taiwan, 5 Jun. 1985, coll. S.–C. Lee.]

Remark. The original data provided by Russell (1993) was apparently in error and is corrected herein.

206. *Nemipterus matsubarae* Jordan and Evermann, 1902:346, fig. 18
= *Nemipterus virgatus* (Houttuyn)
Holotype: ZUMT 5071 (269 TL), Giran [Yilan], Formosa [NE Taiwan].
Paratype: ZUMT 5108 (203 TL), same as holotype.
Remark. Both type specimens are apparently lost (Kazuo Sakamoto, pers. comm., 24 Oct. 2007).

207. *Pentapodus aureofasciatus* Russell, 2001:53, figs.1–2
Paratype: ASIZP 55680 (140.8), 22°03'N, 120°45'E, Hengchun, Taiwan, 19 Feb. 1981.
Other type: NTM S.10919–001 (holotype) and 20 paratypes.

208. *Scolopsis eriomma* Jordan and Richardson, 1909:188, pl. L20
= *Parascolopsis eriomma* (Jordan and Richardson)
Holotype: FMNH 52247 (formly CM 317), Takao, coll. Hans Sauter
Paratype: SU 9243 (2), same data as holotype.
Remark. The figured specimen is labeled type and has been determined to be holotype.

Sparidae (378)

209. *Acanthopagrus taiwanensis* Iwatsuki and Carpenter, 2006:4, figs. 1A, 2D–E, 3A–4A and 5A–B
Holotype: MUFS 22854 (male, 167), estuary basin of Tung–kang River (purchased in Tung–kang Fish Market), southwestern Taiwan, hook–and–line (according to sellers in market), 22 May, 2005, coll. Y. Iwatsuki.
Paratypes: MUFS 11870 (1, sex not determined, 110), Tung–kang, southwestern Taiwan, 25 February 1973, coll. M. Akazaki; MUFS 22165 (1, sex not determined, 184), Tung–kang, southwestern Taiwan, 27 December 2002, coll. Y. Iwatsuki; MUFS 22166 (1, female, 216), same data as MUFS 22165; MUFS 22855 (1, female, 175), data same as holotype; MUFS 22857 (1, sex not determined, 106), mouth of Tung–kang River, southwestern Taiwan, shrimp set nets, 22 May, 2005, coll. Y. Iwatsuki.

210. *Argyrops bleekeri* Oshima, 1927:141
Holotype: a single specimen (28 TL) collected from Toko [Ping–tung], 20 Dec. 1920.
Remark. Oshima (1927) mentioned that there were other specimens collected from Toko and Tainan and the distribution of the present species was from Celebes to the southern part of Kyushu. The only type series was not registered to any institution and is probably lost.

Polynemidae (380)

211. *Polydactylus rhadinus* Jordan and Evermann, 1902:351, fig. 20
= *Eleutheronema rhadinum* (Jordan and Evermann)
Neotype: ASIZP 60745 (152), Linkou, Taipei, Taiwan, 5–8 m, coll. P.–L. Lin.
Remark. The original type was not held in ZMUT and was lost, a neotype was designated by Motomura et al. (2002).

Sciaenidae (381)

212. *Johnius trewavasae* Sasaki, 1992:191, figs., 1, 2A
Holotype: HUMZ 109504 (126.8), Taiwan Strait, 16 Apr. 1986, coll. K. Nishida.
Other type: 14 paratypes.

213. *Pseudotolithus brunneolus* Jordan and Richardson, 1909:191, pl. L21

= *Atrobucca nibe* (Jordan and Thompson)

Holotype: FMNH 52174 [formerly CM 327] (203 TL), Takao, coll. Hans Sauter.

Paratype: FMNH 59521 (1, 203 TL) and SU 21185 (1, 203 TL), same as holotype.

Remark. The figured specimen is labeled type and has been determined to be holotype.

Pempheridae (383)

214. *Pempheris nyctereutes* Jordan and Evermann, 1902:339, fig. 14

Holotype: ZUMT 42902 [ZUMT? no.286] (203 TL), Hokoto [Hokuto, Taipei City], Formosa.

Remark. The holotype is apparently lost (Kazuo Sakamoto, pers. comm., 24 Oct. 2007).

Chaetodontidae (393)

215. *Chaetodon dorsiocellatus* Ahl, 1923:111

= *Chaetodon auripes* Jordan and Snyder

Holotype: ZMB, 20416 (37 TL), Takao [Kaohsiung], coll. Hans Sauter

Remark. Dr. Peter Bartsch (ZMB, pers. comm., 24 Oct. 2008) kindly informed us that the holotype is present in the collection.

Pomacanthidae (394)

216. *Centropyge caudoxanthorus* Shen, 1973:70, figd.75–76

= *Centropyge fisheri* (Snyder)

Holotype: NTUM 72–11–23–001 (46.6), Ho–bi–hou, southwestern tip of Taiwan.

217. *Chaetodontoplus cephalareticulatus* Shen and Lim, 1975:97, fig. 16

Holotype: NTUM 02696 (88.8), northeastern coast of Taiwan.

218. *Genicanthus vermiculatus* Shen and Lim, 1975:86, Fig. 7

= *Genicanthus watanabei* (Yasuda and Tominaga)

Holotype: NTUM 02695 (95.4), Lu–tao (Green Island), Taiwan, 20 m, 15 Jun. 1974, coll. C.–P. Chen.

Pomacentridae (411)

219. *Chromis alleni* Randall, Ida and Moyer, 1981:215, fig. 2H

Paratype: BPBM 22618 (1, 53.3), Taiwan, south end at Nan Wan, middle of bay east of harbor at hou–pi–hu, rocky pinnacle in 24 m, 20 Jul. 1978, coll. J. E. Randall.

Other type: BPBM 19092 (holotype) and 23 paratypes.

220. *Chromis caudofasciata* Shen and Chen, 1978:33, Fig. 12

= *Chromis fumea* (Tanaka)

Holotype: NTUM 02882 (54.4), Off Pa–dou–tzu, northern Taiwan, 1 May 1970.

Paratype: NTUM 02870 (1, 38.9), off Wan–li–tung, southern Taiwan, 1 Aug. 1976; NTUM 02876 (1, 66.3), off Da–shih, northeast Taiwan, 28 Mar. 1977.

Remark. This species is secondarily preoccupied in *Chromis* by *Dascyllus caudofasciatus* Montalban and is invalid.

221. *Chromis delta* Randall, 1988:78, fig. 3

Paratype: BPBM 23435 (1, 40.8), sand, Nan Wan, middle of bay E of harbour ad Hou–Pi–Hu, rocky pinnacle, Taiwan, 26 m, 20 Jul. 1978, coll. J. E. Randall.

Other type: BPBM 15584 (holotype) and 90 paratypes.

222. *Chromis onumai* Senou and Kudo, 2007:52, figs. 1–4

Holotype: ASIZP 62621 (118.2), 21.52'N, 120.50'E, Eluanbi, Pingtung, Taiwan, 29 Sep. 2003, coll. J.–P. Chen.

Paratypes: ASIZP 66516 (1, 80.6), 22.63'N, 121.46'E, Lu tao, Taitung, Taiwan, 100 m, 24 May 2005, coll. J. E. Randall et al.; ASIZP 66517 (1, 75.9), same data as ASIZP 6615; ASZIP 66704 (1, 125.8); same data as holotype; BPBM 40446 (1, 113.4), Hou–bi–hu fish market, Nan–wan, Pingtung, Taiwan, 18 Jul. 2005, coll. J.–P. Chen; NMMBP 1204 (2, 105.5–112.3), Hou–bi–hu fish market, Nan–wan, Pingtung, Taiwan, 19 Aug. 2004, coll. J.–P. Chen.

Other type: 1 paratype.

223. *Pomacentrus formosanus* Fowler and Bean, 1922:46, fig. 4

= *Teixeirichthys jordani* (Rutter)

Holotype: USNM 76644 (70 TL), Takao, Formosa, [3 Dec. 1914,] coll. F. Baker.

Labridae (412)

224. *Bodianus dictynna* Gomon, 2006:59, Figs 1c, 5d, 37–38, pls. 5J, 6A–B

Paratype: USNM 217863 (1, 43.6), 21°55'20"N, 120°44'10"E, rocky shore of Mao–Pi–Tou on SW coast, Taiwan, 12–13 m, 6 May 1968, coll. V. G. Springer and J. Choat.

Other types: USNM 217870 (holotype) and 11 paratypes.

225. *Choerodon pescadorensis* Yu, 1968:10, fig. 4

= *Choerodon robustus* (Günther)

Holotype: THUP 956 (280 TL), Pescadores [Penghu Islands, W Taiwan].

Paratype: THUP 2096 (1, 212 TL), THUP 2492 (1, 267 TL), Pescadores [Penghu Islands, W Taiwan].

226. *Choerodon quadrifasciatus* Yu, 1968:11, fig. 5

= *Choerodon schoenleinii* (Valenciennes)

Holotype: THUP 2527 (75 TL), Tongkong.

Paratype: THUP 2589 (1, 76 TL); THUP 3360 (1, 86 TL).

227. *Choerops nyctemblema* Jordan and Evermann, 1902:353, fig. 21

= ?*Choerodon schoenleinii* (Valenciennes)

Holotype: ZUMT [orig. no.356], Formosa.

Remark. The holotype is apparently lost (Kazuo Sakamoto, pers. comm., 24 Oct. 2007). Parenti and Randall (2000) mentioned it is questionably a synonym of *Choerodon schoenleinii*.

228. *Cirrhilabrus melanomarginatus* Randall and Shen, 1978:18, pl.2B

Holotype: BPBM 18675 (99.3), female, south end Mao Pi Tou, boulder bottom with some coral, 6–10 m, spear, 11 Jun. 1975, coll. J. E. Randall.

Paratype: BMNH 1977.12.14.2 (1, 109.2), same as holotype; BPBM, 20967 (1, 56.2), same as holotype; CAS 40468 (1, 108.8), same as holotype; NTUM 04717 (1, 123.0), Hung–tsai–kung, Taiwan, 20 Nov. 1972; NTUM 04718 (1, 125.0), wan–li–tung, coral reef, Taiwan, 4 Jan. 1973, coll. W. H. Ting; NTUM 04729 (1, 89.0), Hung–tsai–kung, Taiwan, 28 Apr. 1972, coll. W. H. Ting; USNM 217960 (1, 105.3), same as holotype; UTIO–F 0234 (1, 73.5), between off shore rock and rocky point opposite Tan–tzu, Nan Wan Bay, south end of Taiwan,

40 m, 20 Sep. 1971, coll. R. S. Jones and H. T. Kami.

Other type: 1 paratype.

229. *Cirrhilabrus rubrimarginatus* Randall, 1992:114, pl.2, figs. A–C

Paratypes: ASIZP 56606 (10, 25.8–92.4), Taiwan, Hsiao-liu-chiu, coral rubble, 32 m, dip net, 10 Jul. 1991, coll. J. –P. Chen; BPBM 24456 (2, 37–59.2), Taiwan, S end of Nan Wan, liddle of bay directlt E f boat harbor at Hou–Pi–Hu.30–32 m, 20 Jul. 1978, coll. J. E. Randall; BPBM 24457 (1, 92.0), same locality, 22 Jul. 1978.

Other type: BPBM 19134 (holotype) and 43 paratypes.

230. *Halichoeres orientalis* Randall, 1999:295, fig. 1–5

Paratype: ASIZP 59817 (1, 38), Taiwan, Lanyu (Orchid Island), Wukungtung, [Taitung,] 3 m, 6 Jul. 1993, coll. J. –P. Chen.

Other type: URM–P 5980 (holotype) and 7 paratypes.

231. *Hemipteronotus caeruleopunctatus* Yu, 1968:129, fig .54

= *Iniiistius verrens* (Jordan and Evermann)

Holotype: THUP 3187 (144 TL), Koahsiung.

Paratype: THUP 3388 (40+, 85–140 TL), Kaoshiung.

232. *Hemipteronotus evides* Jordan and Richardson, 1909:196, pl.22

= *Iniiistius baldwini* (Jordan and Evermann)

Holotype: FMNH 52197 (formly CM 343, 127 TL), Takao [Kaohsiung, SW Taiwan], coll. Hans Sauter.

Paratype: SU 21255 (1, 101 TL), same as holotype.

Remark. The figured specimen is labeled type and has been determined to be holotype.

233. *Hemipteronotus verrens* Jordan and Evermann, 1902:354, fig. 22

= *Iniiistius verrens* (Jordan and Evermann)

Holotype: SU 7134 (114 TL), Keerun [Keelung, N Taiwan], coll. T. Tada.

Remark. Randall et al. (2002) assigned this species to *Iniiistius*.

234. *Leptojulius urostigma* Randall, 1996:10, fig. 3, pl.2, fig. B, pl.3, fig. D–F

Paratype: NMSMP 259 (1, 69.5), Taiwan, N coast at Nuclear Power Plant, Chinsan, [Taipei County,] 25°15'N, 121°38'E, specimen impinged on intake, 6.7 m, 4 Jun. 1989, coll. P. –L. Lin.

Other type: CAS 32618 (holotype) and 7 paratypes.

235. *Pseudocoris ocellatus* Chen and Shao, 1995:690, fig. 1

Holotype: ASIZP 56678 (110.8), coastal waters off Wanlitung, [Pingtung,] southern Taiwan, isolated reef, 15 m, 6 Apr. 1992, J. –P. Chen.

Paratype: ASIZP 56779 (4, 32.7–37.3), BPBM 35752 (3, 31.9–40.2), NTUM 07567 (2, 30.7–35.2), coastal waters off Yenliao [, Taipei County], northeastern Taiwan, reef slope edge, 4–5 m, 12 Jul. 1993, J. –P. Chen; BPBM 35751 (1, 100.9), female, collected with the holotype.

236. *Xyrichthys trivittatus* Randall and Cornish, 2000, fig. 1

Paratype: NUTM 7136 (male, 118), Nanfangao, Suao, northeast coast of Taiwan, 20 Jul. 1986, coll. H.–S. Yeh.

Other type: BPBM 38550 (holotype) and 2 paratypes.

Pinguipedidae (435)

237. *Neopercis macrophthalmalma* Pietschmann, 1911:431

= *Parapercis macrophthalmalma* (Pietschmann)

Holotype: ZMB 16160 [107.5], Takao [Kaohsiung], Taiwan.

Remark. The information for the holotype is based on Johnson (2006). Dr. Peter Bartsch (ZMB) kindly informed us that the holotype is present in the collection.

238. *Parapercis shaoi* Randall, 2008: 171, Fig. 15

Holotype: ASIZP 65966 (male, 126 SL), Taiwan, I-Lan County, off Nanfangao, 24.5818°N, 121.8668°E, maximum 400 m, commercial bottom trawl, 8 March 2005, coll. P.–F. Lee.

Paratypes: BPBM 40667 (1, 138 SL), Taiwan, Pingtung County, off Hengchun, commercial bottom trawl, 26 May 1975, coll. K.–T. Shao; BMNH 2007.9.13.1 (1, 123 SL), Taiwan, Pingtung County, off Donggang, 22.47°N, 120.43°E, commercial bottom trawl, 10 September 1980, coll. K.–T. Shao; USNM 391495 (1, 139 SL), same locality as proceeding, 5 July 1993, coll. P.–L. Lin; ASIZP 66064 (1, 147 SL), Taiwan, Taitung County, off Chenggong, 23.1°N, 121.37°E, 80–150 m, commercial longline, 9 March 2005, coll. P.–F. Lee.

Other type: 1 paratype.

Percophidae (439)

239. *Osopsaron formosensis* Kao and Shen, 1985:175, fig. 1–2

Holotype: TMF (Taiwan Museum) 165 (42.6), Tachi harbor, northeastern Taiwan, 17 Dec. 1984.

Paratype: TMF 166 (19, 35.9–47.8), Tachi [Tashi] harbor, northeastern Taiwan, 24 Jan. 1985.

Ammodytidae (441)

Embolichthys Jordan and Evermann in Jordan, 1903:693

= *Bleekeria* Günther

Type species: *Bleekeria mitsukurii* Jordan and Evermann, 1902.

240. *Bleekeria mitsukurii* Jordan and Evermann, 1902:333, fig. 12

Holotype: SU 7133 (133 TL), Giran [Yilan], coll. T. Tada.

Paratype: SU 67143 (1), same with holotype.

Protammodytes Ida, Sirimontaporn and Monkolprasit, 1994:253

Type species: *Protammodytes brachistos* Ida, Sirimontaporn and Monkolprasit, 1994.

241. *Protammodytes brachistos* Ida, Sirimontaporn and Monkolprasit, 1994:254, figs. 1, 3A, 4A, 5A, 9A, 10A, 12A, 13A, 14A

Holotype: FSKU 701117 (86.0), from the stomach content of an *Etelis* sp., east coast of Taiwan, 200 m, 24°07'N, 123°18'E.

Other type: 1 paratype.

Uranoscopidae (443)

242. *Uranoscopus flavipinnis* Kishimoto, 1987, fig. 2

= *Uranoscopus chinensis* Guichenot

Paratype: HUMZ 80659 (1, 100.3), Kaohsiung fish market, Taiwan, Dec. 1978, coll. Tsutomu Kanayama.

Other type: HUMZ 107319 (holotype) and 37 paratypes.

Tripterygiidae (445)

243. *Ceratobregma helenae* Holleman, 1987:175, fig. 2

Paratype: USNM 280187 (1, 29.8), SW shore of Ch'uan-fan-shih, Taiwan, 8–9 m, 30 Apr. 1968, coll. V. G.

Springer et al.; USNM 280188 (1, 29.3), 21°55'N, 120°44'E, E rocky shore of Moa-pi-tou, Taiwan, 12–14 m, 6 May 1968, coll. V. G. Springer and J. H. Choat; USNM 280189 (3, 23.1–33.2), Ch'uan-fan-shih, Taiwan, 0–6 m, 23 Apr. 1968, coll. V. G. Springer et al.

Other type: WAM P.26098–012 (holotype) and 30 paratypes.

244. *Enneapterygius cheni* Wang, Shao, and Shen, 1996: 80, fig. 1–2

Holotype: ASIZP 57448 (23.6), Cheng-kung, eastern coast of Taiwan, 25°07'N, 121°21'E, 8–10 m, 26 Jan. 1994, coll. J. –P. Chen.

Paratype: ASIZP 57449 (1, 20.4), same sata as holotype; ASIZP 57450 (2, 18.9–21.5) and NTUM 7870 (2, 21.7–22.6), Cheng-kung, 5–7 m, 3 Mar. 1994, coll. J. –P. Chen.

245. *Enneapterygius erythrosoma* Shen and Wu, 1994:7, fig. 5

Holotype: NTUM 07815 (27.2), Wen-tz-keng, 21 Mar. 1991.

Paratype: NTUM 07816 (1, 26.0), NTUM 07852 (1, 25.1), USNM 329658 (formly NTUM 7853, 1, 25.0), all collected with holotype; NTUM 07854 (1, 24.4), Liu-chiu, 8 Nov. 1990.

Remark. Originally described with the authorship as Shen and Wu. This species was synonymized with *Enneapterygius rubicauda* Shen and Wu by Fricke (1997). However, Chiang and Chen (2008) resurrected it as a valid species.

246. *Enneapterygius flavoccipitis* Shen and Wu, 1994:8, fig. 6

Holotype: NTUM 07836 (23.3), Ho-bi-hou 23 May 1991.

Paratype: NTUM 07837 (1, 23.0), same as holotype, NTUM 07842 (1, 25.9), Liu-chiu, 8 Nov. 1990, USNM 329659 (formly NTUM 7847, 1, 25.3), Liu-chiu, 8 Nov. 1990.

247. *Enneapterygius hsiojenae* Shen and Wu, 1994:11, fig. 7

Holotype: NTUM 07828 (29.3), Wen-tz-ken, 21 May 1991.

Paratype: NTUM 02829 (1, 25.9), same as holotype; NTUM 07826 (1, 29.5), Wen-tz-ken, 18 Jul. 1990; NTUM 07827 (1, 28.0), Ba-do-tz, 7 Mar. 1991; NTUM 07849 (1, 27.3), Ba-do-tz, 7 Mar. 1991; USNM 329660 (formly NTUM 7850, 1, 29.5), Ba-do-tz, 7 Mar. 1991.

Remark. This species was synonymized with *Enneapterygius vexillarius* Fowler by Fricke (1997). Chiang and Chen (2008) resurrected it as a valid species.

248. *Enneapterygius leucopunctatus* Shen and Wu, 1994:12, fig. 8

Holotype: NTUM 07823 (32.3), Wen-tz-keng, 21 mar. 1991.

Paratype: NTUM 7851 (1, 29.0), same as holotype; NTUM 07852 (1, 32.3), same as holotype.

Remark. This species was synonymized with *Enneapterygius vexillarius* by Fricke (1997). However, Chiang and Chen (2008) resurrected it as a valid species.

249. *Enneapterygius rubicauda* Shen and Wu, 1994:17, fig. 11

= *Enneapterygius flavoccipitis* Shen and Wu

Holotype: NTUM 07806 (20.3), Liu-chiu, south coast of Taiwan, 10 Jul. 1991.

Paratype: NTUM 07803 (1, 24.5), Liu-chiu, 8 Nov. 1990; NTUM 07804 (1, 21.3), Liu-chiu, 6 Jan. 1991; NTUM

07857 (1, 17.7), same as holotype; NTUM 07858 (1, 18.9), same as holotype; USNM 07859 (1, 21.0), Liu-chiu, 8 Nov. 1990; USNM 329661 (formly NTUM 7860, 1, 21.6), Liu-chiu, 8 Nov. 1990.

250. *Enneapterygius shaoi* Chiang & Chen, 2008:189, Figs. 1c, 1d, 3

Holotype: NTOU-P 2008-06-304 (21.9 SL), Feng-chui-sha, Hengchun township, Pingtung County, Taiwan, 3–12 m, 21 Jul. 2007, coll. M.-C. Chiang et al.

Paratypes: NTOU-P 2008-06-299 (1, 19.4 SL), Chenggong Township, Taitung County, 19 Aug. 2006, coll. M.-C. Chiang et al. NTOU-P 2008-06-300 (1, 19.6 SL), NTOU-P 2008-06-301 (1, 18.7 SL), NTOU-P 2008-06-302 (1, 23.4), NTOU-P 2008-06-303 (1, 23.8); same data as holotype.

251. *Enneapterygius sheni* Chiang & Chen, 2008:185, Figs. 1a, 1b, 2

Holotype: NTOU-P 208-06-366 (male, 23.0 SL), Feng-chui-sha, Hengchun township, Pingtung County, Taiwan, 3–12 m, 20 Jul. 2007, coll. M.-C. Chiang et al.

Paratypes: NTOU-P 2008-06-359 (1, female, 20.8 SL), NTOU-P 2008-06-363 (1, female, 20.8 SL), NTOU-P 2008-06-367(1, male, 21.3 SL), NTOU-P 2008-06-368(1, male, 23.2 SL), NTOU-P 2008-06-369 (1, male, 21.5 SL); same data as holotype.

252. *Helcogramma fuscopinna* Holleman, 1982:115, fig. 4

Paratype: USNM 227738 (4, 28.5–39.9), southwest shore just off Ch'uan-fan-shih, Taiwan, 21°55'48"N, 120°48'47"E, 8–9 m, 3 May. 1968, coll. V. G. Springer et al. ; USNM 227739 (1, 43.0), bay with rock and coral, SE of K'enting, SE Taiwan, 0–3 m, 22 Apr. 1968, V. G. Springer et al.; USNM 227745 (9, 29.8–40.8), SW shore just off Ch'uan-fan-shih, Taiwan, 5–7 m, 28 Apr. 1968, coll. V. G. Springer et al.

Other type: SAIAB 954 (formly RUSI 77–18, holotype) and 234 paratypes.

253. *Helcogramma habena* Williams and McCormick, 1990:1026, fig. 6, 8

= *Helcogramma inclinata* (Fowler)

Paratype: USNM 222333 (3, 32.1–40.5), 21°55'30"N, 120°48'E, bay between K'en-ting and Ta-yuan Shan, 4.5–8.5 m, 1 May 1968, coll. V. G. Springer et al.; USNM 222347 (80, 19.7–42.7), just south of cut between large outstanding rock and Ch'uan-fan-shih, 4.5–6 m, 24 Apr. 1968, coll. V. G. Springer et al.

Other type: USNM 300194 (holotype) and 65 paratypes.

254. *Helcogramma striata* Hansen, 1986:349

Paratype: USNM 221916 (11, 5 males and 6 females, 23.3–35.0, 3 c & s), 21°55'N, 120°48'E, rocky and coral bottom with deep canyons, Mao-Pi T'ou, southwest shore of island, 10–15 m, coll. V. G. Springer; USNM 269807 (1, out of USNM 221916, c & s).

Other types: USNM 221667 (holotype) and 118 paratypes.

Blenniidae (447)

255. *Cirripectes imitator* Williams, 1985:533, figs. 1–2

Paratypes: BPBM 23228 (12, 34.0–81.6), eastcoast off San Shien Tai, 0–2 m; NTUM 5777-1&2 (2, 78.1–79.1), Su-ao Harbor; NTUM 5780 (1, 42.1), The-jen chuen (Lan-yu); USNM 227979 (2, 80.6–92.9), rocky headland NW of Sha Tao, Taiwan, 0–6 m [5 May 1968, coll. J. Choat et al]; USNM 227980 (6, 73.0–90.8, 1 for c & s), cut between large outstanding rock and Ch'uan-fan-shih, Taiwan, 4–6 m, [24 Apr. 1968, coll. V. G. Springer et al.]; USNM 258315 (8, 46.1–57.2); USNM 258316 (2, 47.7–50.3), 22°40'N, 121°29'E; UF 41606 (out of USNM 258315, 1, 41.4); tide pool, Green Island, Taiwan, [20 Aug. 1982, coll. Mok et al.].

Other type: FAKU 48203 (holotype) and 32 paratypes.

256. *Ecsenius oculus* Springer, 1971:35, fig. 31

Holotype: USNM 203140 (male, 53.8), immediately south of cut between large outstanding rock and Ch'uan-fan-shih, south end of Taiwan, 6 m, 24 Apr. 1968, coll. V. G. Springer.

Paratype: USNM 203139 (3, 40.8–42.7), [21°55'15"N, 120°49'45"E,] rocky shore just south of Chin-chiao-wan, south end of Taiwan, [0–6 m, 8 May 1968, coll. V. G. Springer and J. Choat]; USNM 203141 (1, 45.5), rocky headland northwest of swimming beach of Sha Toa, south end of Taiwan, [0–6 m, 5 May 1968, coll. V. G. Springer et al.]; USNM 203142 (4, 43.9–50.5), just north to the type locality [Cut between large outstanding rock and Ch'uan-fan-shih, south end of Taiwan, 0–6 m, 23 Apr. 1968, coll. V. G. Springer et al.]; USNM 203923 (7, 38.0–52.4), collected with the holotype.

Other type: 30 paratypes.

257. *Laiphognathus longispinis* Murase, 2007:288, figs. 1–5

Paratype: AZISP 56680 (1 male, 34.6, and 1 female, 31.1), 22°83'N, 120°21'E, Yong-an, Kaohsiung, Taiwan, 27 Aug. 1991, coll. J.–P. Chen; ASIZP 58494 (1, male, 35.6), same as ASIZP 56680.

Other type: NSMT-P 70853 (holotype) and 36 paratypes.

258. *Petroscirtes springeri* Smith–Vaniz, 1976:37

Holotype: USNM 203279 (49.7), 25°12'N, 121°41'E, entrance of cove at point just southwest of Yeh Lin, Taiwan, 7.5–9 m, 19 May 1968, coll. V. G. Springer et al.

259. *Salarias namiyei* Jordan and Evermann, 1902:362, fig. 25

= *Ecsenius namiyei* (Jordan and Evermann)

Holotype: ZUMT 5726 [orig. no.278] (63.5), Hokoto [Hokuto, Taipei City] or Pescadores Is., Taiwan.

Remark. The holotype is apparently lost (Kazuo Sakamoto, pers. comm., 24 Oct. 2007).

Chaenopsidae (450)

260. *Neoclinus nudus* Stephens and Springer, 1971:65, fig. 1

Holotype: USNM 205217 (male, 50), 25°12'N, 121°41'E, cove just south of Yeh-Liu, Taiwan, South China Sea [in error, East China Sea], 4 m, 18 May 1968, coll. V. G. Springer et al.

Paratype: USNM 205218 (10, 1 c & s), same as holotype.

Remarks. The type locality is in northern Taiwan, outside the range of South China Sea.

Callionymidae (453)

261. *Callionymus formosanus* Fricke, 1981b:369, fig. 14

Holotype: CAS 46972 (female, 104.0), Formosa Strait, 25°N, 120°E, ca.90 m, Apr. 1971, coll. F. B. Steiner.

262. *Callionymus martinae* Fricke, 1981a:162, fig. 11

Holotype: CAS 28206 (male, 56.2), Taiwan, southwest of Kaohsiung into China Sea, 73–92 m, 13 Oct. 1972, F. B. Steiner.

Paratype: CAS 47769 (1, 35.5), the same data with holotype.

263. *Callionymus octostigmatus* Fricke, 1981a:143, figs.1–6

Paratype: CAS 15958 (2 females and 4 males, 41.1–55.6), Formosa Strait, ca.26°N, 121°E, 16 Jun. 1971, coll. F. B. Steiner; CAS, 20791 (1, female, 46.4), Formosa Strait, 27°30'N, 121°30'E, ca.80–100 m, 17 Jun. 1971, coll. F. B. Steiner; CAS 30328 (1, male, 55.1), northwest to northwest of Keelung, 70–100 m, 8–9 May 1972, coll. F. B. Steiner.

Other type: CAS 33370 (holotype) and 50 paratypes.

Eleotridae (457)

264. *Eleotris fasciatus* Chen, 1964:45, fig. 4

Holotype: unknown (female, 61.5), Lan-yu (Botel Tobago), Aug. 1960.

Paratype: unknown, (male, 64.2), collected with the holotype.

Remark. Neither institute has the specimen deposited nor was a catalog number provided in the original description. They are most likely in NTUM but may be lost.

265. *Eleotris fortis* Tanaka, 1912:106, pl. 27, figs. 108–109, pl. 28, fig. 113

= *Eleotris oxycephala* Temminck and Schlegel

Holotype: ZUMT uncat. (205 TL), Tamsui River near Taihoku, Formosa, coll. Akamatsu.

Remark. The holotype is apparently lost (Kazuo Sakamoto, pers. comm. Oct. 2007).

Gobiidae (460)

Barbuligobius Lachner and McKinney, 1974:871

Type species: *Barbuligobius boehlkei* Lachner and McKinney, 1974.

266. *Amblyeleotris bleekeri* Chen, Shao and Chen, 2006:2556, figs. 1A, 2

Holotype: ASIZP 64286 (57.7), Sogang, Penghu County, Taiwan, 23 Apr. 1991, coll. J. –P. Chen.

Paratype: NMMB P7903 (2, 12.0–14.2), Guihou, Taipei county, Taiwan, 19 m, coll. J. –P. Chen.

Remark. This species is only found in the coastal regions off northeastern Taiwan and the Penghu Islands off western Taiwan.

267. *Amblyeleotris taipinensis* Chen, Shao and Chen, 2006:2561, figs. 1B, 3

Holotype: ASIZP 57110 (44.2), Taiping Island, Nansha Islands, South China Sea, 15 m, 20 Apr. 1994, coll. J. –P. Chen.

268. *Barbuligobius boehlkei* Lachner and McKinney, 1974:871, figs. 1–4

Holotype: USNM 209209 (18.0), 21°55'48"N, 120°48'48"E, southwest shore just off Ch'uan-fan-shih, Taiwan, 5–6 m, [28 Apr. 1968], coll. V. G. Springer.

Paratype: USNM 209213 (1, male, 23.8), cut between large outstanding rock and Ch'uan-fan-shih, [0–6 m, 23 Apr. 1968], coll. V. G. Springer et al.

Other type: 14 paratypes.

269. *Callogobius nigromarginatus* Chen and Shao, 2000:459

Holotype: ASIZP 57693 (31.7), coastal waters off Keehui, Taitung County, southeastern Taiwan, 4 m, muddy and sandy bottom of subtidal reef flats, 9 Mar. 1994, coll. J. –P. Chen.

Paratype: ASIZP 57694 (2, 17.8–23.9), same as holotype; BPBM 37304 (1, 23.9), same as holotype; ASIZP 57695 (2, 19.5–27.4), Chengkung, Taitung county, southeastern Taiwan, 10 m, muddy and sandy bottom similar to that of type locality of holotype, 25 Jan. 1994, coll. J. –P. Chen.

270. *Callogobius sheni* Chen, Chen and Fang, 2006:228, figs. 1–2

Holotype: MNNB P6980 (27.2), female, near Yu-fu tsun, Liu-chiu Shiang, Shiao-liu-chiu Island, Pingtung County, Taiwan, 15 m, 22 Oct. 2003, coll. J. –P. Chen and I. –S. Chen.

Paratype: ASIZP 64285 (1, 24.5); NMMB P6981 (1, 22.6), NMMB P6982 (1, 28.4), NMMB P6983 (1, 18.9); all collected with the holotype.

- 271. *Coryphopterus humeralis*** Randall, 2001b:212, figs. 5–6
 = *Fusigobius humeralis* (Randall)
 Paratype: ASIZP 60501 (3, 25.2–28.0), Taiwan, S end at Maopitou, rock and rubble bottom with caves, 15 m, 18 Jul. 1978, coll. J. E. Randall et al.
 Other type: BPBM 32955 (holotype) and paratype.
- 272. *Cristatogobius albius*** Chen, 1959:209, fig. 1
 Holotype: TFRI 3929 (37.5), Tong-kang, southeastern Taiwan, Jan. 1958, coll. H.–C. Yang.
Remark. This species was once synonymized with *Cristatogobius nonatoae* (Ablan) by Akihito and Meguro (2000), but Larson and Murdy (2001) recognized it as valid.
- 273. *Cryptocentrus yangii*** Chen, 1960:11, fig. 1
 = *Myersina yangii* (Chen)
 Syntype: NTUM uncat. (7, 4 males and 3 females, 67.7–89.3), Fang-liaw, the most southern part of Taiwan, bottom trawlers, may 1960; TFRI uncat. (not seen)
Remark. This species is considered as an endemic and extinct species. According to the original description, there were seven specimens collected from Fang-liaw. Those specimens might be deposited in NTUM. There are also specimens collected from Tung-kang and deposited in TFRI, but not seen by us.
- 274. *Cryptocentrus yatsui*** Tomiyama, 1936:81, fig. 31
 Holotype: ZUMT 25229 (90), Tainan market, Formosa.
 Paratype: ZUMT 14894–8 (5) and ZUMT 25228 (6, 65–80), came data as holotype.
Remark. Five paratypes of the type series (ZUMT 14894–8) were apparently lost (Kazuo Sakamoto, Pers. Comm. Oct. 2007).
- 275. *Ctenogobius candidianus*** Regan, 1908a:153
 = *Rhinogobius candidianus* (Regan)
 Syntype: BMNH 1908.5.27.29–33 (5), Lake Candidius, Taiwan; SMNS 4380 (5), Lake Candidius, Formosa, coll. Hans Sauter.
Remark. We followed Chen and Shao (1996) and Chen (2008) to recognize it as a valid species.
- 276. *Ctenogobius formosa*** Randall, Shao and Chen, 2003:509, fig. 3–5
 Holotype: ASIZP 61575 (male, 45.7), sand bottom, Nanwan, Pingtung County, southern Taiwan, depth 10–12 m, 6 Nov. 1998, coll. J.–P. Chen.
 Paratypes: ASIZP 61576 (1, female, 35.7), same collecting data as for holotype, the burrow less than 1 m from that of holotype and its female pair; BPBM 38479 (1, male, 35.8), outside intake bay of Third Nuclear Power Plant, Nanwan, 12 m, 7 Nov. 1997, coll. J.–P. Chen; NMMBP 2404 (1, female, 40.7), taken with holotype.
- 277. *Flabelligobius smithi*** Chen and Fang, 2003:334, figs. 1–3
 = *Tomiyamichthys smithi* (Chen and Fang)
 Holotype: NMMBP 1905 (95.2), Taiwan Strait off Tongkang, Pingtung County, Taiwan, ca.100 m, 6 Aug. 1996, coll. S.–H. Lai.
 Paratype: NMMBP 1906 (1, 95.8); NMMBP 1907 (1, 97.9); data same as holotype.
- 278. *Fusigobius duospilus*** Hoese and Reader, 1985:2
 Paratype: USNM 263459 (2, 31–38), [21°55'48"N, 120°48'48"E], SW shore off Ch'uan-fan-shih, [S. Taiwan,] 6–7 m, 3 May 1968, coll. V. G. Springer et al.
 Other type: AMS I.22619–026 (holotype) and 189 paratypes.

- 279. *Glossogobius abacopus*** Jordan and Richardson, 1909:200, pl. L24
 = *Glossogobius biocellatus* (Valenciennes)
 Holotype: FMNH 52210 (formerly CM 357), Takao, coll. Hans Sauter.
 Paraotype: FMNH 59540 (1) and SU 21258 (2), same as holotype.
Remark. The figured specimen is labeled as type and has been determined to be holotype.
- 280. *Glossogobius parvus*** Oshima, 1919:305, pl.53, fig. 3
 = *Mugilogobius cavifrons* (Weber)
 Holotype: FMNH 59138 [ex CM 8276] (44 TL), a small island near Kizanto, near Giran [I-Lan], Taiwan.
- 281. *Gnatholepis davaoensis*** Seale, 1910:537
 Neotype: BPBM 18670, S end of Hou Pi Hoo, Taiwan, 0–0.2 m.
Remark. Holotype (BSMP 3858, 45 TL) has been destroyed; a neotype was designated by Randall and Greenfield (2001).
- 282. *Oxyurichthys formosanus*** Nichols, 1958:4, fig. 1
 Holotype: AMNH 20323 (55 TL), from the Tam-sui River, Formosa, 27 sep. 1956, coll. Myles Walsh, III.
- 283. *Priolepis fallacineta*** Winterbottom and BurrIDGE, 1992:1940, figs. 1, 6, 7
 Paratypes: SAIAB [formerly RUSI] 35455 (1, 19.7), 22°06'N, 120°45'E, Rentin [In error, Kenting] National Park, off Houpihu, 20 Jan. 1988, coll. P. Heemstra et al.
 Other type: ROM 53146 (holotype) and 26 paratypes.
- 284. *Priolepis kappa*** Winterbottom and BurrIDGE, 1993:501, figs.9–10
 Paratype: USNM (1, 19.0), 21°55'48"N, 120°48'48"E, SW shore, just off Ch'uan-Fan-Shih, 7.5–8.5 m, 3 May 1968, coll. V. G. Springer et al.
 Other type: ROM 58052 (holotype) and 28 paratypes.
- 285. *Priolepis latifascima*** Winterbottom and BurrIDGE, 1993:504, figs. 11–13
 Paratype: BPBM 23094 (1, 18.5), N shore, W side of peninsula at Yeh-liu, rocky shore, 0–2 m, 28 Jun. 1978, coll. J. E. Randall et al.
 Other type: LICPP 1982161 (holotype) and 3 paratypes.
- 286. *Rhinogobius delicatus*** Chen and Shao, 1996:208, figs.8–9
 Holotype: ASIZP 57227 (64.9), Shokulwan R., Hualien County, 29 Dec. 1993.
 Paratype: ASIZP 57228 (13, 36.0–63.1), Shinwulwu River, Taitung County, 14 Sep. 1992; ASIZP 57229 (6, 48.5–62.7), Marwuku River, Taitung County, 12 Dec. 1992; ASIZP 57230 (1, 55.2), Shokulwan River, Hualien County, 29 Dec. 1993.
- 287. *Rhinogobius formosanus*** Oshima, 1919:300, pl.53, fig. 2
 Holotype: FMNH 59135 (formerly CM 8273) (65 TL), Shinchiku, Dec. 1916, coll. T. Aoki.
Remark. Chen and Shao (1996) recognized it as a valid subspecies of *R. nagoyae*. Here, we follow Chen (2008) to recognize it as a valid species.
- 288. *Rhinogobius gigas*** Aonuma and Chen, 1996:9, fig. 1
 Holotype: ASIZP 57224 (80.5), Shinwulwu R. of Peinandar R., Taitung Co., Taiwan, 12 Dec. 1992.
 Paratype: ASIZP 57225 (3, 39.9–57.4), Sanjan River, Hualien County; ASIZP 57226 (8, 51.7–67.4), Nanau River, Ilan County, 8 Sep. 1993; NMBM P0302 (3, 27.6–48.9), Kinglun River, Taitung County, Taiwan, 21 Dec. 1993.

Remark. There were 32 non-type specimens used in the description. This species is only found in midstream and downstream of rivers of eastern Taiwan.

289. *Rhinogobius henchuenensis* Chen and Shao, 1996:209, fig. 12

Holotype: ASIZPT 57241 (37.0), Fongkang River, Pingtung County, 21 Oct. 1993.

Paratype: ASIZP 57242 (10, 31.3–44.5), Fongkang River, Pingtung County, 21 Oct. 1990; ASIZP 57243 (9, 28.0–38.0), Fongkang River, Pingtung County, 15 May 1994.

290. *Rhinogobius lanyuensis* Chen, Miller and Fang, 1998:256, figs. 1–2

Holotype: ASIZP 57811 (66.9), Dong-Ching brook, Lanyu, Taiwan, 25 Aug. 1996, coll. I.–S. Chen.

Paratype: ASIZP 57812 (1, 45.6), Ye-Yu brook, Lanyu, Taiwan, 12 Jun. 1993, coll. J.–P. Chen; ASIZP 57813 (5, 48.2–55.6), same as holotype; NMMBP 0470 (8, 41.0–64.9), same as holotype.

291. *Rhinogobius maculafasciatus* Chen and Shao, 1996:210, fig. 13

Holotype: ASIZP 57233 (44.1), Kaoping River, Pingtung County, 7 Mar. 1993.

Paratype: ASIZP 57234 (4, 31.6–42.8), Tzengwen River, Tainan County, 6 Nov. 1993; ASIZP 57235 (15, 30.1–50.0), Tzengwen River, Chiayi County, 14 Jan. 1994; ASIZP 57236 (1, 33.2), Tzengwen River, Tainan county, 3 Apr. 1994.

Remark. This species is only found in middle and lower drainages of southern Taiwan.

292. *Rhinogobius nantaiensis* Aonuma and Chen, 1996:11, Fig. 2

Holotype: ASIZP057237 (44.2), Ailiaopei R. of Kouping R., Pingtung Co., Taiwan, 25 Mar. 1994.

Paratype: ASIZP 57238 (3, 22.4–29.4), Nantsushan River of Kouping River, Kaohsiung County, 25 Jan. 1994; ASIZP57239 (2, 26.9–40.3), Ailiaopei River of Kouping River, Pingtung County, 26 Mar. 1994; ASIZP 57240 (14, 34.2–60.2), Tzengwen River, Chiayi County, Taiwan, 2 Apr. 1994.

Remarks. There were 22 non-type specimens used for description. This species is endemic to southern Taiwan from middle and upper drainages of Tzengwen and Kaoping rivers.

293. *Rhinogobius rubromaculatus* Lee and Chang, 1996:31, fig. 1

Holotype: ASIZP 56640 (39.0), Tadu River, Taichung County, Taiwan.

Paratype: ASIZP 57271 (7, 17.0–32.2), Tsoshui river, Nantou County, Taiwan, 14 Apr. 1991.

294. *Rhinogobius taiwanus* Oshima, 1919:298, pl.53, fig. 1

= *Rhinogobius candidianus* (Regan)

Lectotype: FMNH 59134 [ex CM 8272] (69 TL), Shinchiku, Dec. 1916, coll. T. Aoki.

Paralectotype: SU 23104 (1), Dakusui River; SU 23106 (1), Shinchiku; SU 23107 (1), Shinten, Formosa; SU23109 (1), Bokusekikaku, Formosa; SU 23167 (1), Jitsugetsutan, Formosa; SU 23178 (1), Sobun River; SU 23181 (1), Inzampo, Formosa; SU 23181 (1), Nainansho; all probably coll. by T. Aoki, sent by M. Oshima.

Remark. Original description based on a 69-mm TL specimen which was selected as lectotype (Eschmeyer, 1998). Data from 11 additional specimens was provided and 8 of them were relocated by us in CAS.

295. *Schismatogobius ampluvinculus* Chen, Shao and Fang, 1995:202, figs. 1–3

Holotype: ASIZP 56923 (22.2), Jinglun River, Taitung County, Taiwan, 14 Dec. 1994, coll. I.–S. Chen.

Paratype: ASIZP 56988 (1, female, 22.3), Jinglun River, Taitung County, Taiwan, 29 Dec. 1993, coll. I.–S. Chen; ASIZP 57277 (5, 19.0–24.5), Jupung Brook, Pingtung County, Taiwan, 9 Feb. 1995, coll. I.–S. Chen; ASIZP 57278 (3, 25.2–26.9), Luliao Brook, Pingtung County, Taiwan, 2 Mar. 1995, coll. I.–S. Chen. .

296. *Stiphodon percnopterygionus* Watson and Chen, 1998:63, figs. 5–7

Paratype: NMMBP 344 (3 males and 3 females, 21.3–27.0) and NMMBP 362 (2 males and 2 females, 20.3–26.9), Lanyu island, Taitung County, 25 Aug. 1995, coll. I.–S. Chen; NMMBP 361 (3 males and 4 females, 21.7–

33.8), Lu-liao River, Pingtung County, 2 Mar. 1995, coll. I.-S. Chen; SMF 28038 (1 male, 8 females and 1 juvenile, 13.9–30.4), Kangtsu River, Pingtung County, 13 Oct. 1995, coll. I.-S. Chen.

Other types: NSMT P49671 (holotype) and 114 paratypes.

297. *Trimmatom macropodus* Winterbottom, 1989:2404, figs.1–2

Paratype: USNM 293529 (13.0), 21°57'48"N, 121°13'32"E, [in error, 21°55'15"N, 120°49'45"E,] south end of rocky shore just south of Chin-chiao-wan, 0–6 m, 8 May 1968, coll. V. G. Springer and J. Choat.

Other type: AMS I. 19456–113 (holotype) and 2 paratypes (1, c & s).

298. *Trysogobius porosus* Larson and Chen, 2007:156, figs. 1–4

Holotype: ASIZP 65022 (male, 22.5), off Tung kang, Pingtung County, Taiwan, 100 m, 5 Dec. 2003, coll. H.-J. Chen.

Paratypes: NTM S.16087–001 (1 male and 1 female, 22.5–26.0), same data as for holotype; ZRC 50384 (1, female, 22), same data as for holotype; NTOU P–2005–07–001 (1, female, 26), same data as for holotype; NTOU P–2005–05–087 (1, female, 21.5), off Fong-Kang, Taiwan, 50 m, 22 May 2002, coll. H.-J. Chen; NTOU P–2005–05–088 (1, male, 27.5), same data as for previous entry.

Other type: 2 paratypes (1, C & s).

Ptereleotridae (461)

299. *Ptereleotris monoptera* Randall and Hoese, 1985:24, pl. III, C, D, fig. 8

Holotype: BPBM 23140 (male, 70.3), N shore off Kuei-Hou, Taiwan, rocky bottom with some sand, 6 m, 2 Jul. 1978, coll. G. W. Tribble.

Paratype: BPBM 23111 (4, 54.5–63.9), N end, W side of peninsula at Yeh Liu, Taiwan, tock and sand, 10 m, 28 Jun. 1978, coll. J. E. Randall; BPBM 23122 (9, 31.0–64.5), same locality as BPBM 23111, 30 Jun. 1978, coll. J. E. Randall and G. W. Tribble.

Other type: 61 paratypes.

Acanthuridae (470)

300. *Acanthurus lishenus* Shen and Lim, 1973:121, fig. 28

= *Acanthurus pyroferus* Kittlitz

Holotype: NTUM 7312501 (53.0), Hong-tsai-keng, southwestern tip of Taiwan, 7 m, 25 Jan. 1973.

Remark. We followed Randall (2002:55) to include this species in the synonymy of *Acanthurus pyroferus*.

301. *Acanthurus melanopterus* Shen and Lim, 1973:122, fig. 29

= *Acanthurus pyroferus* Kittlitz

Holotype: NTUM 72121801 (68.6), Wan-li-tung, southwestern tip of Taiwan, 5–10 m, 18 Dec. 1972.

Paratype: NTUM 72111702 (1, 46.0), Wan-li-tung, southwestern tip of Taiwan, 5–10 m, 17 Nov. 1972.

Remark. We followed Randall (2002:55) to include this species in the synonymy of *Acanthurus pyroferus*.

302. *Acanthurus reticulatus* Shen and Lim, 1973:119, fig. 27

= *Acanthurus xanthopterus* Valenciennes

Holotype: NTUM 7011901 (81.8), Hai-koa, southwestern tip of Taiwan, 6 m, 9 Nov. 1970.

Paratype: NTUM 7011902–3 (2, 78.6–81.8), Hai-koa, southwestern tip of Taiwan, 4–8 m, 9 Nov. 1970.

303. *Naso reticulatus* Randall, 2001:173, figs.1–2

Holotype: BPBM 23428 (male, 490), southern end at Nanwan, middle of bay directly east of fishing boat harbor at Houpihu, Taiwan, 15 m, 20 Jul. 1978, coll. J. E. Randall.

Other type: 1 paratype.

Scombridae (475)

304. *Rastrelliger faughni* Matsui, 1967:74, figs.1, 5

Paratype: USNM 76606 (2, 192–201), Takao, Taiwan, [South China Sea, 3–4 Dec. 1914, coll. F. Baker]; USNM 195321 (1, 202), [Albatross Expedition], Soo Wan Bay, Formosa, [South China Sea, 3–9 m, 29 Jan. 1910].
Other type: USNM 190018 (holotype) and 28 paratypes.

305. *Thunnus mebachi* Kishinouye, 1915:19

= *Thunnus obesus* (Lowe)

No type known.

Remark. No type was designated in the original description. The author mentioned the species can be found in the Ryukyus Islands and Taiwan. We did not read the original description, but a translated version made by W. G. van Campen.

Istiophoridae (477)

306. *Kajikia formosana* Hirasaka and Nakamura, 1947:13, fig. in text

= *Tetrapturus audax* (Philippi)

No type known.

Remark. No type was designated in the original description. Hirasaka and Nakamura (1947) mentioned that this species occurred in the eastern sea of Taiwan and were landed at Suao between February and April.

307. *Eumakaira nigra* Hirasaka and Nakamura, 1947:16, pl.2, fig. 2

= *Makaira mazara* (Jordan and Snyder)

No type known.

Remark. No type was designated for this species in the original description. Hirasaka and Nakamura (1947) mentioned that this species was widespread in the southern sea and common in the South China Sea and Japan Current, but in different seasons.

Family Osphronemidae (486)

308. *Macropodus filamentosus* Oshima, 1919:278, pl.52, fig. 1

= *Macropodus opercularis* (Linnaeus)

Holotype: FMNH 59123 (formly CM 8261) (76.0 TL), Kotosho (Botel Tobago Island) [Lan-yu Island], coll. Yonetaro Kikuchi.

Family Channidae (487)

309. *Channa formosana* Jordan and Evermann, 1902:331, fig. 11

= *Channa asiatica* (Linnaeus)

Holotype: SU 7132 (52.5), Sowo or Suwata [Suao, NE Taiwan], Formosa.

Paratype: ZUMT 5470 (1) and ZUMT 21677 (1), Suwata.

Remark. One of the paratype, ZUMT 5470, is apparently lost (Kazuo Sakamoto, pers. comm., 24 Oct. 2007).

310. *Ophicephalus tadianus* Jordan and Evermann, 1902:330, fig. 10

= *Channa maculata* (Lacepède)

Holotype: ZUMT No 3xx (241 TL), Formosa.

Remark. The holotype is apparently lost (Kazuo Sakamoto, pers. comm., 24 Oct. 2007).

Family Paralichthyidae (492)

Spinirhombus Oshima, 1927:187

Type species: *Spinirhombus ctenosquamis* Oshima, 1927

311. *Pseudorhombus formosanus* Oshima, 1927:182

= *Pseudorhombus cinnamoneus* (Temminck and Schlegel)

Holotype: unknown (260 TL), Taihoku fish market [Taipei fish market], 21 Dec. 1918.

Paratype: unknown (6), 3 specimens taken from Taihoku fish market, 2 from Tainan and 1 from Keelung.

Remark. The original description was based on a specimen taken from Taihoku [Taipei] fish market and data from 6 additional specimens was provided. The type series was not registered to any institution and is believed to be lost.

312. *Spinirhombus ctenosquamis* Oshima, 1927:188

= *Pseudorhombus ctenosquamis* (Oshima)

Holotype: unknown (140 TL), Tainan fish market (Anping, near Tainan), 1 Apr. 1918.

Remark. The holotype was not registered to any institution and is believed to be lost.

313. *Spinirhombus levisquamis* Oshima, 1927:189

= *Pseudorhombus levisquamis* (Oshima)

Holotype: unknown (122 TL), Tainan fish market, [SW Taiwan,] Apr. 1908.

Paratype: unknown (1), Tôkô [Kaoshiung, SW Taiwan].

Remark. The type series was not registered to any institution and is believed to be lost.

314. *Spinirhombus taiwanus* Oshima, 1927:189

= *Pseudorhombus cinnamoneus* (Temminck and Schlegel)

Holotype: unknown (245 TL), Taihoku fish market [Taipei fish market], Nov. 1922.

Paratype: unknown (2), 1 specimen taken from Taihoku fish market and one from Tainan fish market.

Remark. The type series was not registered to any institution and is believed to be lost.

Bothidae (494)

315. *Crossorhombus howensis* Hensley and Randall, 1993:1120, fig. 1–3

Paratype: USNM 260394 (2, 62.9–103.4), [cut between large outstanding rock and Ch'uan-fan-shih, south end of Taiwan, 0–6 m, 23 Apr. 1968,] coll. V. G. Springer et al.

Other type: BPBM 14892 (holotype) and 2 paratypes.

316. *Parabothus taiwanensis* Amaoka and Shen, 1993:1041, fig. 1

Holotype: HUMZ 114127 (male, 148.5), Off Kaohsiung, southwestern coast of Taiwan, trawl, 10 May 1989.

Paratype: HUMZ 114128 (1, male, 140.7), collected with holotype; NTUM 05591 (1, 125.1), Kaohsiung, 2 Nov. 1977; NTUM 05592 (1, male, 137.9) and NTUM 05599 (1, juvenile, 80.4), off Ta-chi [Tashi], northeastern coast of Taiwan, 6 Nov. 1981.

317. *Laeops tungkongensis* Chen and Weng, 1965:63, fig. 42

Lectotype: NMMBP 5170 (formerly THUP 2301) (143), Tung kang fish market, Mar. 1964.

Paralectotype: NMMBP 5170 (3, 99–141), same as lectotype.

Samaridae (409)

318. *Samariscus filipectoralis* Shen, 1982:210, fig. 9

Holotype: NTUM 5337 (83.1), Tungkong, Taiwan, 26 Oct. 1978.

Paratype: NTUM 5335 (1, 74.9), Ko-tj-liao, 3 dec. 1978; NTUM 5336 (1, 80.0), Ta-chi [Tashi, NE Taiwan,]; NTUM 5337 (2 of 3, 78.4–82.3), Tungkang, [SW Taiwan,] 26 Oct. 1978; NTUM 5338 (3, 69.9–83.4), Kaohsiung[, SW Taiwan].

Remark. The holotype is the largest specimen of three type specimens in the jar NTUM 5337.

Soleidae (501)

319. *Aseraggodes cheni* Randall and Senou, 2007:304, figs. 1–4

Holotype: ASIZP 66518 (74.5), 21°45.5'N, 120°49.4'E, sand of outer-reef slop, Seven-star Rock, Taiwan, 48 m, 14. Jun. 2003, coll. J.–P. Chen.

Other type: 3 paratypes.

320. *Aseraggodes orientalis* Randall and Senou, 2007:307, fig. 5

Paratype: SAIAB 34992 (1, 41.5), 22.1°N, 120.75°E, coral reef and adjacent sand, off Houpihu, Kenting National Park, Taiwan, 10–12 m, 20 Jan. 1988, coll. P. C. Heemstra.

Other type: ZUMT 59828 (holotype) and 1 paratype.

321. *Brachirus annularis* Fowler, 1934:346, fig. 99

Holotype: USNM 93095 (151 TL), Albatross station D.5315, 21°40'N, 116°58'E, China Sea, vicinity of Formosa, 271 m, 5 Nov. 1908.

Paratype: USNM 93206 (1), collected with the holotype.

322. *Synaptura nebulosa* Chen and Weng, 1965:76, fig. 52

= *Brachirus annularis* Fowler

Holotype: NMMBP 5173 (formerly THUP 2768) (137), Tungkong, [SW Taiwan,] Mar. 1965.

Remark. The holotype is now deposited in NMMBP.

Cynoglossidae (502)

323. *Areliscus tenuis* Oshima, 1927:201

= *Cynoglossus joyneri* Günther

Holotype: unknown (170 TL), Tainan fish market, [SW Taiwan,] 20 Apr. 1920.

Remark. The holotype was not registered to any institution and is believed to be lost.

324. *Cynoglossus diplasios* Jordan and Evermann, 1902:367

= *Cynoglossus bilineatus* (Lacepède)

Holotype: ZUMT [orig. no.43] (267 TL), Formosa.

Remark. The holotype is believed to be lost (Kazuo Sakamoto, pers. comm., 24 Oct. 2007).

325. *Paraplagusia formosana* Oshima, 1927:200

= *Paraplagusia bilineata* (Bloch)

Holotype: unknown (163 TL), Taihoku fish market [Taipei fish market], Jan, 1923.

Remark. The holotype was not registered to any institution and is believed to be lost.

326. *Symphurus megasomus* Lee, Chen & Shao, 2009:342, Figs. 1–2.

Holotype: ASIZP 67640 (136.2), off northeastern coast of Taiwan, Da-shi Fish Market, bottom trawl fishing, 5 Feb. 2007, coll. M.–Y. Lee.

Paratypes: ASIZP 63163 (2, males, 121.0–136.2), Ocean Researcher I, CP 120, 24°51.799'–24°49.839'N, 122°2.549'–122°2.399'E, off Su-ao, eastern Taiwan, beam trawl, 520–640 m, 31 July 2001. ASIZP 63845 (1 male and 1 mature female, 110.5–129.6), Ocean Researcher I, CP 195, 24°52.159'–24°49.639'N, 122°3.129'–122°2.669'E, off Su-ao, eastern Taiwan, beam trawl, 570 m, 11 Sep. 2002. ASIZP 63160 (2 females, 102.2–121.9), Ocean Researcher I, CP 120, 24°48.479'–24°51.929'N, 122°2.409'–122°2.449'E, off Su-ao, eastern Taiwan, otter trawl, 471–531 m, 1 Aug. 2001. AMS I.44690–001 (formerly ASIZP 67649) (2 males and 1 immature female, 88.2–96.8), 29 June 2007; BSKU 96068 (formerly ASIZP 67637) (1 male, 139.2), 21 Aug. 2006; BSKU 96069 (formerly ASIZP 67638) (1 male, 118.0), 21 Aug. 2006; MNHN 2008–1929 (formerly ASIZP 67643) (1 male, 118.6), 9 Mar. 2007; MNHN 2008–1930 (formerly ASIZP 67636), (1 female, 127.0), 18 Jul. 2006; USNM 393588 (formerly ASIZP 67644) (2 males and 2 mature females, 123.3–146.7), 16 Mar. 2007; all from near holotype locality, coll. M.–Y. Lee.

327. *Symphurus multimaculatus* Lee, Munroe & Chen, 2009: 51, Figs. 1–2

Holotype: ASIZP 67634 (female, 93.5), Nan-fang-ao fish port in landings of commercial bottom trawler fishing off northeastern coast of Taiwan, 6 Jan 2007, coll. M.–Y. Lee.

Paratypes: ASIZP 67647 (1 female, 79.6) and ASIZP 67648 (1 female, 75.0), off northeastern coast of Taiwan, Da-shi fish port, 22 Jun. 2007, coll. M.–Y. Lee. ASIZP 67654 (1 male, 64.7) and ASIZP 67655 (1 male, 69.5), off southwestern coast of Taiwan, Dong-gang fish port, 4 Jul. 2007, coll. M.–Y. Lee. USNM 394605 (1 male, 90.6) and USNM 394606 (1 male, 78.5), off southwestern coast of Taiwan, Dong-gang fish port, 13 Nov. 2007, coll. H.–C. Ho.

Remark. This species is now only known from NE and SW Taiwan.

328. *Symphurus novemfasciatus* Shen and Lin, 1984:8, fig. 3

Holotype: NTUM 04564 (83.1), Tungkong, [SW Taiwan,] 1 Feb. 1980.

Paratype: NTUM 04565 (1, 76.0), same as holotype.

Triacanthodidae (503)

Paratriacanthodes Fowler, 1934:362

Type species: *Paratriacanthodes retrospinis* Fowler, 1934

329. *Paratriacanthodes retrospinis* Fowler, 1934:364, fig. 114

Holotype: USNM 93171 (114 TL), Albatross station D.5517, 21°36'00"N, 117°27'00"E, China Sea, vicinity of Formosa, 421 m, 5 Nov. 1908.

Paratype: USNM 93485 (3), collected with holotype.

Remark. The type specimens were collected from southwestern Taiwan into the South China Sea. There were six paratypes in the original description. However, only three are present in USNM collection.

Questionable records in Taiwan

330. *Leptocephalus inferior* Shen, 1963:261, figs.1–3

Syntype: NTUM uncat. (2, 50.9–55.1 TL), larvae, estuary of Tam-sui River, northern Taiwan.

Remark. Shen (1963) mentioned that these two larvae, with 112 and 119 myomeres, possibly belongs to *Anguilla*.

331. *Leptocephalus caudatum* Shen, 1963:263, figs.4–8

Holotype: NTUM uncat. (74.0 TL), larva, estuary of Tam–sui River, northern Taiwan.

Remark. Shen (1963) mentioned that this single larva, with 134 myomeres, possibly belongs to *Muraena*.

332. *Leptocephalus edentata* Shen, 1963:265, figs.9–12

Holotype: NTUM uncat. (62.5 TL), larva, estuary of Tam–sui River, northern Taiwan.

Remark. Shen (1963) mentioned that this single larva, with 181 myomeres, possibly belongs to *Muraena*.

333. *Leptocephalus truncatum* Shen, 1963:266, figs.13–14

Holotype: NTUM uncat. (74.7 TL), larva, estuary of Tam–sui River, northern Taiwan.

Remark. Shen (1963) mentioned that this single larva, with 181 myomeres, possibly belongs to *Muraena*.

334. *Ptychidio jordani* Myers, 1930:112, fig. in text



FIGURE 5. Holotype of *Ptychidio jordani* Oshima, 1920, SU 23927, 270 mm TL.

Holotype: SU 23927 (270 TL), central Formosa, probably Polisia or Kagi, 1908, coll. Victor Kühne.

Remark. This is also the type species of the genus *Ptychidio*. Böhlke (1953) suggested this species was introduced from mainland China. This species was never found in Taiwanese waters and should be excluded from the ichthyofauna of Taiwan.

335. *Leuciscus medius* Oshima, 1920b:190, fig. 2

= ?*Xenocypris medius* (Oshima)

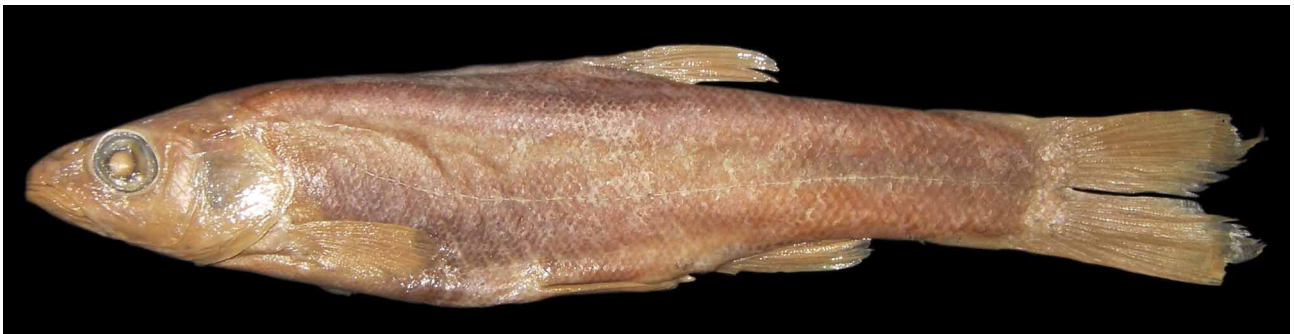


FIGURE 6. Holotype of *Leuciscus medius* Oshima, 1920, ANSP 63148, 110 mm TL.

Holotype: ANSP 63148 (110 TL), central Taiwan, collected by student of National Normal University in summer of 1919.

Remark. Status of this species is still uncertain. See remark in *Leuciscus schisturus* below.

336. *Leuciscus schisturus* Oshima, 1920b:189, fig. 1

= ?*Xenocypris schisturus* (Oshima)

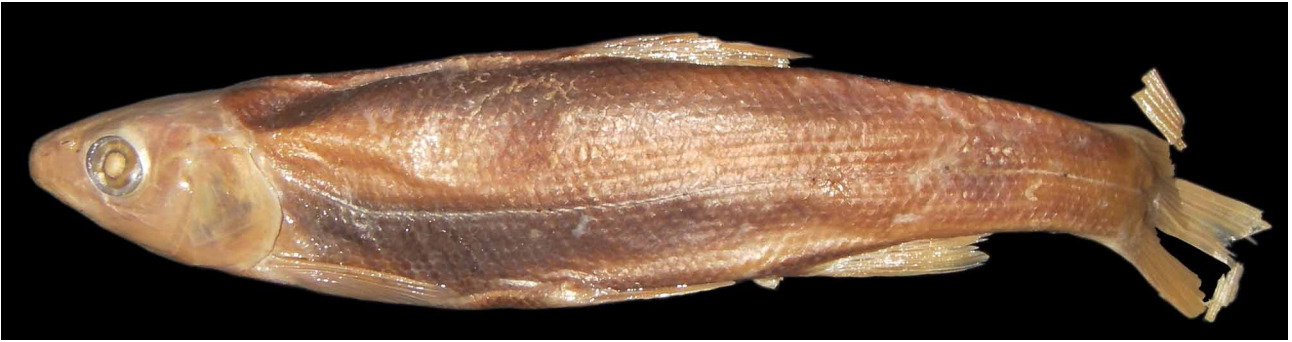


FIGURE 7. Holotype of *Leuciscus schisturus* Oshima, 1920, ANSP 63183, 145 mm TL.

Holotype: ANSP 63183 (145 TL), central Taiwan, collected by student of National Normal University in summer of 1919.

Remark. Status of this species is still uncertain. Oshima (1920b) stated that *L. medius* and *L. schisturus* were collected together with *Salmo formosanus* [= *Oncorhynchus formosanus*] and *Liobagrus formosanus* that are only found in Taiko [Da–Jia] and Taito [Da–Du] rivers. However, neither specimen nor record for both was reported in Taiwan after Oshima’s description.

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