**Appendix 1. Summary of recent comparative material**

**Museum/institutional abbreviations and their specimen registration code**

BRMAS: Biodiversity Research Museum, Academia Sinica, Taiwan (catalog no. under ASIZP)

CHL: Marine Paleontology Lab, Biodiversity Research Center, Academia Sinica, Taiwan (<https://otolithlin.biodiv.tw/>, catalog no. under CHLP)

NMMBA: National Museum of Marine Biology and Aquarium, Taiwan (catalog no. under NMMB-P)

TOU-AE: the Laboratory of Aquatic Ecology, Department of Aquaculture, National Taiwan Ocean University, Taiwan (catalog no. under TOU-AE)

**Examined extant comparative material**

*Acanthopagrus chinshira* Kume and Yoshino, 2008

*Fresh material*: 2 specimens, CHLP 2000019 (288.45 mm TL/232.86 mm SL/418.00 g), CHLP 2000035 (276.46 mm TL/231.52 mm SL/366.00 g), 24 Dec. 2020, Keelung.

*Museum material*: 1 specimen, ASIZP 0071052 (155.00 mm TL), 7 May 2008, Makung, Penghu.

*Acanthopagrus latus* (Houttuyn, 1782)

*Fresh material*: 8 specimens, CHLP 2000027 (272.82 mm TL/220.05 mm SL/345.00 g), CHLP 2000036 (266.33 mm TL/220.16 mm SL/360.00 g), CHLP 2000038 (352.94 mm TL/297.92 mm SL/891.00 g), CHLP 2000040 (290.08 mm TL/240.59 mm SL/402.00 g), CHLP 2000041 (280.30 mm TL/233.84 mm SL/394.00 g), CHLP 2000042 (327.73 mm TL/262.83 mm SL/618.00 g), CHLP 2000049 (279.62 mm TL/226.97 mm SL/376.00 g), CHLP 2000099 (300.60 mm TL/245.97 mm SL/541.00 g), 31 Oct. 2019, Lungfeng fishing port, Miaoli.

*Acanthopagrus pacificus* Iwatsuki, Kume and Yoshino, 2010

*Fresh material*: 2 specimens, CHLP 2000021 (316.84 mm TL/256.65 mm SL/652.00 g), CHLP 2000047 (314.39 mm TL/265.00 mm SL/701.00 g), 12 Jan. 2019, Kantzuting fish market, Keelung.

*Museum material*: 13 specimens, ASIZP 0058843 (2 specimens, 176.00 mm TL, 177.00 mm TL), 7 July 1990, Hsingta fishing port, Kaohsiung; ASIZP 0059835 (2 specimens, 133.00 mm TL, 136.00 mm TL), 8 Nov. 1998, drift net, Pali, New Taipei; ASIZP 0070266 (156.00 mm TL), 28 Mar. 1990, bottom drag net, Wangkung fishing port, Changhua; ASIZP 0074445 (2 specimens, 144.00 mm TL, 145.00 mm TL), 2 Sep. 2000, drift net, Tapengwan, Pingtung; ASIZP 0074446 (3 specimens, 92.00 mm TL, 166.00 mm TL, 168.00 mm TL), 15 Sep. 1999, bottom gill net, Wuchi fishing port, Taichung; ASIZP 0074447 (200.00 mm TL), 9 May 2000, hook and line, Tungshan river, Yilan; ASIZP 0074502 (276.00 mm TL), 2 Sep. 2000, drift net, Tapengwan, Pingtung; ASIZP 0074660 (200.00 mm TL), 8 Aug. 2002, drift net, Peimen, Tainan.

*Acanthopagrus schlegelii* (Bleeker, 1854)

*Fresh material*: 27 specimens, CHLP 2000050 (192.00 mm TL/182.00 mm SL/130.14 g), CHLP 2000051 (250.00 mm TL/238.00 mm SL/310.01 g), CHLP 2000052 (211.00 mm TL/195.00 mm SL/157.29 g), CHLP 2000053 (170.00 mm TL/157.00 mm SL/79.10 g), CHLP 2000054 (175.00 mm TL/162.00 mm SL/92.07 g), CHLP 2000055 (194.00 mm TL/176.00 mm SL/114.14 g), CHLP 2000056 (200.00 mm TL/187.00 mm SL/123.52 g), CHLP 2000057 (221.00 mm TL/198.00 mm SL/160.85 g), CHLP 2000058 (218.00 mm TL/203.00 mm SL/156.30 g), CHLP 2000059 (239.00 mm TL/218.00 mm SL/204.12 g), CHLP 2000060 (242.00 mm TL/225.00 mm SL/205.15 g), CHLP 2000061 (227.00 mm TL/202.00 mm SL/173.49 g), CHLP 2000062 (290.00 mm TL/267.00 mm SL/430.12 g), CHLP 2000063 (288.00 mm TL/275.00 mm SL/455.75 g), CHLP 2000064 (320.0 mm TL/293.00 mm SL/525.68 g), CHLP 2000065 (293.00 mm TL/279.00 mm SL/340.15 g), 1 Feb. 2018, 47 Highland, Kinmen; CHLP 2000066 (220.00 mm TL/195.00 mm SL/152.30 g), CHLP 2000067 (203.00 mm TL/184.00 mm SL/128.11 g), CHLP 2000068 (232.00 mm TL/217.00 mm SL/200.81 g), CHLP 2000069 (268.00 mm TL/249.00 mm SL/309.10 g), CHLP 2000070 (254.00 mm TL/238.00 mm SL/305.37 g), 19 Aug. 2018, Chienkung Island, Kinmen; CHLP 2000071 (339.00 mm TL/312.00 mm SL/721.09 g), CHLP 2000072 (406.00 mm TL/382.00 mm SL/1352.61 g), CHLP 2000073 (280.00 mm TL/261.00 mm SL/389.96 g), CHLP 2000074 (301.00 mm TL/285.00 mm SL/495.88 g), CHLP 2000075 (323.00 mm TL/301.00 mm SL/676.50 g), CHLP 2000076 (313.00 mm TL/285.00 mm SL/646.75 g), 1 Dec. 2018, Liaolo fishing port and Hsinhu fishing port, Kinmen.

*Acanthopagrus sivicolus* Akazaki, 1962

*Fresh material*: 2 specimens, CHLP 2000029 (264.03 mm TL/223.51 mm SL/361.00 g), CHLP 2000030 (255.06 mm TL/217.26 mm SL/360.00 g), 31 Oct. 2019, Lungfeng fishing port, Miaoli.

*Acanthopagrus taiwanensis* Iwatsuki and Carpenter, 2006

*Fresh material*: 3 specimens, CHLP 2000026 (275.06 mm TL/223.56 mm SL/434.00 g), 24 Dec. 2020, Keelung; TOU-AE 7342 (284.00 mm TL/247.00 mm SL), 15 Mar. 2019, Daxi fishing port, Yilan; TOU-AE 7548 (210.00 mm TL/175.00 mm SL), 13 Mar. 2019, Kantzuting fish market, Keelung.

*Museum material*: 6 specimens, ASIZP 0074057 (135.00 mm TL), 4 May 1980, Tungkang, Pingtung; ASIZP 0074659 (5 specimens, 150.00 mm TL, 160.00 mm TL, 165.00 mm TL, 167.00 mm TL, 175.00 mm TL), 8 Aug. 2002, drift net, Peimen, Tainan.

*Argyrops bleekeri* Oshima, 1927

*Fresh material*: 1 specimen, TOU-AE 7531 (282.00 mm TL/242.00 mm SL), 23 Feb. 2019, Kantzuting fish market, Keelung.

*Museum material*: 7 specimens, ASIZP 0055345 (3 specimens, 163.00 mm TL, 164.00 mm TL, 180.00 mm TL), ASIZP 0055584 (3 specimens, 106.00 mm TL, 120.00 mm TL, 125.00 mm TL), 24 July 1979, Tungkang, Pingtung; ASIZP 0065878 (240.00 mm TL) 27 Apr. 2005, long line, Chengkung fishing port, Taitung.

*Argyrops spinifer* (Forsskål, 1775)

*Museum material*: 1 specimen, NMMB-P 002972 (127.20 mm TL/101.10 mm SL), 1 Nov. 2001, 100m depth, Chiehting, Kaohsiung;

*Dentex abei* Iwatsuki, Akazaki and Taniguchi, 2007

*Fresh material*: 1 specimen, CHLP 2000033 (312.00 mm TL/260.00 mm SL/ 475.00 g), 25 Feb. 2019, Lungfeng fishing port, Miaoli.

*Museum material*: 1 specimen, NMMB-P 0022463 (114.25 mm TL/89.80 mm SL), 21 Jan. 2015, Ketzuliao, Kaohsiung.

*Dentex hypselosomus* Bleeker, 1854

*Fresh material*: 13 specimens, CHLP 2000007 (294.89 mm TL/242.63 mm SL/522.00 g), CHLP 2000008 (260.84 mm TL/207.59 mm SL/372.00 g), CHLP 2000009 (257.97 mm TL/208.70 mm SL/374.00 g), CHLP 2000010 (261.89 mm TL/211.22 mm SL/352.00 g), CHLP 2000018 (141.09 mm TL/114.61 mm SL/52.00 g), Daxi fishing port, Yilan; CHLP 2000024 (324.22 mm TL/255.84 mm SL/512.00 g), 15 Aug. 2020, Nanning fish market, Yilan; TOU-AE 7273 (200.00 mm TL), TOU-AE 7305 (201.00 mm TL/163.00 mm SL), 3 Mar. 2018, Patoutzu fish market, Keelung; TOU-AE 7301 (205.00 mm TL/172.00 mm SL), TOU-AE 7302 (197.00 mm TL/168.00 mm SL), 8 May 2018, Ketzuliao, Kaohsiung; TOU-AE 7304 (149.00 mm TL/116.00 mm SL), 16 Mar. 2018, Hepingtao, Keelung; TOU-AE 7529 (293.00 mm TL/248.00 mm SL), 23 Feb. 2019, Kantzuting fish market, Keelung; TOU-AE 7599 (282.00 mm TL/229.00 mm SL), 1 Jun. 2019, Kantzuting fish market, Keelung.

*Museum material*: 12 specimens, ASIZP 0055254 (184.00 mm TL), 17 Mar. 1979, Kaohsiung; ASIZP 0055565 (2 specimens, 170.00 mm TL, 184.00 mm TL), 28 Mar. 1980, Yuli, Taipei; ASIZP 0060954 (2 specimens, 157.00 mm TL, 158.00 mm TL), 23 Oct. 2000, bottom drag net, Chinshan, Taipei; ASIZP 0061066 (3 specimens, 129.00 mm TL, 170.00 mm TL, 186.00 mm TL), 1 Dec. 2000, bottom drag net, Daxi fishing port, Yilan; ASIZP 0061148 (2 specimens, 151.00 mm TL, 175.00 mm TL), 15 Nov. 2000, bottom drag net, Aoti fishing port, Taipei; ASIZP 0064938 (176.00 mm TL), bottom drag net, Daxi fishing port, Yilan; ASIZP 0074029 (130.00 mm TL), 7 July 2003, hook and line, Daxi fishing port, Yilan.

*Evynnis cardinalis* (Lacepède, 1802)

*Fresh material*: 22 specimens, CHLP 2000031 (200.37 mm TL/169.66 mm SL/176.00 g), CHLP 2000032 (194.90 mm TL/162.70 mm SL/164.00 g), 31 Oct. 2019, Lungfeng fishing port, Miaoli; CHLP 2000077 (157.00 mm TL), CHLP 2000078 (156.00 mm TL), CHLP 2000079 (162.00 mm TL), CHLP 2000080 (175.00 mm TL), CHLP 2000081 (152.00 mm TL), CHLP 2000082 (163.00 mm TL), CHLP 2000083 (155.00 mm TL), CHLP 2000084 (162.00 mm TL), CHLP 2000085 (151.00 mm TL), CHLP 2000086 (162.00 mm TL), CHLP 2000087 (199.00 mm TL), CHLP 2000088 (161.00 mm TL), CHLP 2000089 (167.00 mm TL), CHLP 2000090 (N/A), CHLP 2000091 (166.00 mm TL), CHLP 2000092 (152.00 mm TL), CHLP 2000093 (156.00 mm TL), CHLP 2000095 (N/A), CHLP 2000097 (165.00 mm TL), CHLP 2000098 (152.00 mm TL), 16 May 2019, Wuchi fishing port, Taichung.

*Evynnis tumifrons* (Temminck and Schlegel, 1843)

*Fresh material*: 3 specimens, CHLP 2000017 (300.06 mm TL/246.75 mm SL/626.00 g), CHLP 2000025 (327.73 mm TL/242.99 mm SL/656.00 g), 15 Aug. 2020, Taipei fish market, Taipei; TOU-AE 7458 (322.00 mm TL/269.00 mm SL), 6 Oct. 2018, Kantzuting fish market, Keelung.

*Pagrus major* (Temminck and Schlegel, 1843)

*Fresh material*: 13 specimens, CHLP 2000013 (355.63 mm TL/270.79 mm SL/672.00 g), Kantzuting fish market, Keelung; CHLP 2000015 (284.83 mm TL/221.94 mm SL/368.00 g), 8 Aug. 2020, Daxi fishing port, Yilan; CHLP 2000016 (328.31 mm TL/254.46 mm SL/642.00 g), 15 Aug. 2020, Taipei fish market, Taipei; CHLP 2000020 (212.30 mm TL/166.54 mm SL/184.00 g), 24 Dec. 2020, Keelung; CHLP 2000104 (305.05 mm TL/241.78 mm SL/528.00 g), CHLP 2000105 (316.70 mm TL/247.83 mm SL/592.00 g), CHLP 2000106 (313.22 mm TL/245.53 mm SL/508.00 g), CHLP 2000107 (333.26 mm TL/260.38 mm SL/598.00 g), CHLP 2000108 (332.53 mm TL/257.72 mm SL/598.00 g), CHLP 2000109 (320.44 mm TL/250.57 mm SL/548.00 g), 24 Apr. 2021, Indonesia; CHLP 2000110 (508.61 mm TL/409.55 mm SL/1804.00 g), 1 Apr. 2021, Keelung; TOU-AE 7497 (284.00 mm TL/226.00 mm SL), 16 Oct. 2018, Kantzuting fish market, Keelung; TOU-AE 7499 (229.00 mm TL/282.00 mm SL), 1 Jun. 2019, Kantzuting fish market, Keelung.

*Museum material*: 7 specimens, ASIZP 0055236 (234.00 mm TL), 10 Feb. 1979, Shihmen, Taipei; ASIZP 0055263 (2 specimens, 203.00 mm TL, 210.00 mm TL), 18 Apr. 1979, Yehliu, Taipei; ASIZP 0060972 (110.00 mm TL), 5 May 2002, Wuchi fishing port, Taichung; ASIZP 0069727 (127.00 mm TL), 20 Sep. 2006, bottom drag net, Yuanli, Miaoli; ASIZP 0072801 (135.00 mm TL), 2 Jan. 2012, pole and lines boote, Peikan, Lienchiang; ASIZP 0074988 (246.00 mm TL), 8 July 2012, bottom drag net, Daxi fishing port, Yilan.

*Rhabdosargus sarba* (Forsskål, 1775)

*Fresh material*: 8 specimens, CHLP 2000022 (294.62 mm TL/232.36 mm SL/574.00 g), CHLP 2000028 (258.21 mm TL/197.24 mm SL/303.00 g), CHLP 2000037 (264.31 mm TL/208.91 mm SL/384.00 g), CHLP 2000039 (273.28 mm TL/227.37 mm SL/433.00 g), CHLP 2000043 (261.59 mm TL/210.70 mm SL/360.00 g), CHLP 2000044 (270.48 mm TL/220.01 mm SL/378.00 g), CHLP 2000045 (220.40 mm TL/179.68 mm SL/208.00 g), CHLP 2000046 (243.76 mm TL/203.79 mm SL/341.00 g), 31 Oct. 2019, Lungfeng fishing port, Miaoli.