

Fishes of the Boso Peninsula, Central Japan—II

Coastal Fishes Taken by Set Net off Chitose, Chikura

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Abstract Fishes taken by set net off the southernmost Pacific coast of the Boso Peninsula (Chitose, Chikura, Chiba Prefecture), central Japan, were collected or recorded during May–December 1992. A total of 29 surveys yielded 150 species (including 2 unidentified species), representing 73 families and 124 genera. Of the 148 identified species, 103 species (70%) have their distribution centers located in southern Japan (south of the peninsula), whereas the remaining 45 species (30%) were relatively wide-ranging, extending the length of Japan. The predominance of the former, together with the absence of more northern species whose distribution centers are located north of the peninsula, are similar to the ichthyofaunal composition of Aino-hama, which lies west of Chitose across the Nojima Point. This reflects characteristics of the zoogeography of the southernmost part of the peninsula, which is greatly influenced by the northward flowing Kuroshio current.

Key words: Ichthyofauna, Kuroshio, Boso Peninsula.

Chitose is located on the southernmost Pacific Ocean side of Boso Peninsula, central Japan (Fig. 1), where the warm Kuroshio current flows northward along the coast. Like other areas of the peninsula except Aino-hama (Miya *et al.*, 1994), the ichthyofaunal composition of the Chitose region has been little surveyed. This paper, the second in a series, "Fishes of the Boso Peninsula," provides a list of coastal fishes that were collected or recorded from set-net catches off Chitose, Chikura, Chiba Prefecture, between May and December 1992, and briefly discusses zoogeographic characteristics of the area.

Materials and Methods

The set net off Chitose is located about 1.5 km southeast of Chitose fishing port (34°59.0' N, 139°58.5' E; Fig. 1) at a depth of about 20 m on a predominantly sandy bottom with scattered rocky areas.

Fishes were collected from the set-net catches while the latter were sorted into the

commercially important species by local fishermen. One to 8 surveys were made each month between May and December 1992 except for June and September, resulting in 29 surveys overall. Well-known or commercially important species that are not apt to be misidentified were recorded, but not collected. Since the purpose of the survey was primarily to qualitatively assess the ichthyofauna, no quantitative data were recorded.

All fishes collected were deposited at the Natural History Museum and Institute, Chiba (CBM). In the list of fishes below, species' names, which follow Masuda *et al.* (1984), are followed by their Japanese names and distribution patterns in Japanese waters, designated by N, S and W in parentheses. N and S denote those species whose distribution centers are located in northern and southern Japan (north and south of the peninsula), respectively. W denotes species occurring the length of Japan. Information on distribution patterns was taken from Masuda *et al.* (1984). The fishes are listed by families in phyloge-

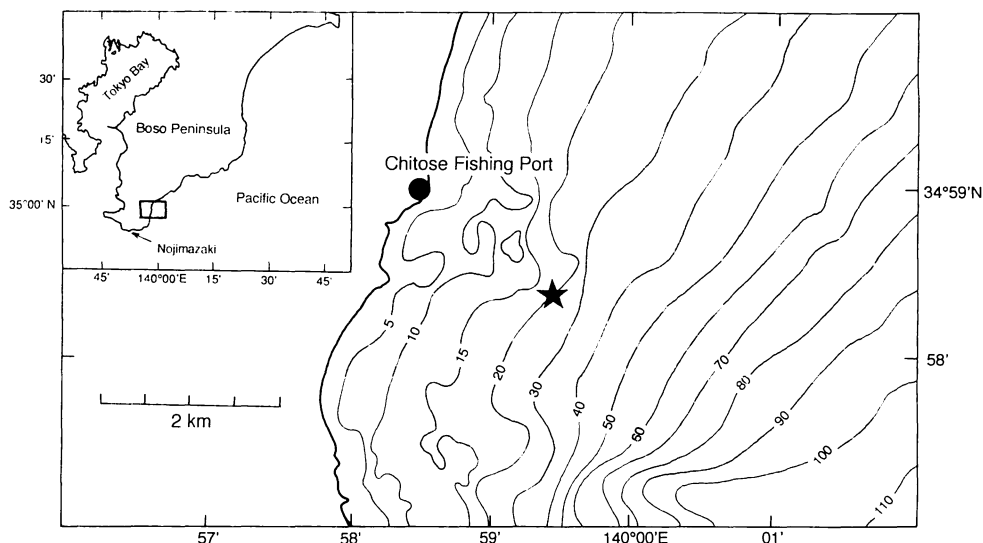


Fig. 1. Locations of Chitose and the set net. Depth contour in meters.

netic sequence (Nelson, 1984) and alphabetically within families by genus and species. A museum number is given for each lot, followed by the number of specimens, and the size range in parentheses (total length [TL] in sharks and eels, disk length [DL] in rays and standard length [SL] in other fishes; all in millimeters) and date of collection (all in 1993). Fishes recorded, but not collected, were designated with asterisks before the species' name. Since the present survey was aimed at listing as many species as possible, a paucity of collection data does not infer an uncommon species.

List of Fishes

- Class Chondrichthyes
- Subclass Elasmobranchii
- Order Lamniformes
- Family Carcharhinidae
- 1. *Hemitriakis japonica* (Müller et Henle): eirakubuka (S)
CBM-ZF 2946 (1, 779 mm TL), July 28
- 2. *Mustelus manazo* Bleeker: hoshizame (W)
CBM-ZF 2879 (1, 336 mm TL), July 8
- 3. **Triakis scyllia* Müller et Henle: dochizame (W)
July 15
- Order Rajiformes
- Family Torpedinidae

- 4. *Crassinarke dormitor* Takagi: nemurishibire-ei (S)
CBM-ZF 3202 (1, 174 mm DL), Oct. 31;
3220 (1, 121), Nov. 18
- 5. *Narke japonica* (Temminck et Schlegel): shibire-ei (S)
CBM-ZF 2730 (1, 152 mm DL), May 13;
2739 (1, 170), May 13

Family Rhinobatidae

- 6. *Rhinobatos schlegelii* Müller et Henle: sakatazame (S)
CBM-ZF 3206 (1, 256 mm TL), Nov. 4

Family Dasyatidae

- 7. *Dasyatis akajei* (Müller et Henle): aka-ei (S)
CBM-ZF 2921 (1, 106 mm DL), July 15;
3184 (1, 204), Oct. 23
- 8. *Gymnura japonica* (Temminck et Schlegel): tsubakuro-ei (S)
CBM-ZF 3207 (1, 237 mm DL), Nov. 4

Family Myliobatidae

- 9. *Myliobatis tobijei* Bleeker: tobi-ei (S)
CBM-ZF 3078 (1, 164 mm DL), Oct. 10

Class Osteichthyes

Order Anguilliformes

Family Muraenidae

- 10. *Gymnothorax kidako* (Temminck et Schlegel): utsubo (S)

CBM-ZF 2891 (1, 295 mm TL), July 8

Family Ophichthidae

11. *Ophisurus macrorhynchus* Bleeker: dainan-umihebi (S)
CBM-ZF 2742 (1, 903 mm TL), May 13

Family Congridae

12. *Anago anago* (Temminck et Schlegel): goten-anago (W)
CBM-ZF 2732 (1, 535 mm TL), May 13
13. *Conger japonicus* Bleeker: kuro-anago (S)
CBM-ZF 3192 (1, 397 mm TL), Oct. 26

Order Clupeiformes

Family Clupeidae

14. *Etrumeus teres* (Dekay): urume-iwashi (S)
CBM-ZF 2752 (1, 105 mm SL), May 13
15. **Sardinops melanostictus* Temminck et Schlegel: ma-iwashi (W)
Nov. 25; Dec. 3, 18

Family Engraulidae

16. *Engraulis japonicus* (Houttuyn): katakuchi-iwashi (W)
CBM-ZF 2751 (1, 82 mm SL), May 13

Order Aulopiformes

Family Synodontidae

17. *Saurida undosquamis* (Richardson): ma-eso (S)
CBM-ZF 2856 (1, 192 mm SL), July 2

Order Myctophiformes

Family Myctophidae

18. *Diaphus sagamiensis* Gilbert: sagami-hadaka (S)
CBM-ZF 2881 (1, 66 mm SL), July 8;
2886 (4, 70–74), July 8

Order Gadiformes

Family Moridae

19. *Physiculus japonicus* Hilgendorf: chigodara (S)
CBM-ZF 2885 (1, 132 mm SL), July 8

Order Lophiiformes

Family Antennariidae

20. *Histrio histrio* (Linnaeus): hanaokoze (S)

CBM-ZF 2922 (1, 62 mm SL), July 15

21. *Phrynelox tridens* (Temminck et Schlegel): izariuo (S)

CBM-ZF 2860 (1, 94 mm SL), July 2

Order Cyprinodontiformes

Family Exocoetidae

22. *Cypselurus furcatus* (Mitchill): shirofuchi-tobi-uo (S)
CBM-ZF 3210 (1, 186 mm SL), Nov. 4
23. **Cypselurus heterurus doederleini* (Steindachner): tsukushi-tobi-uo (W)
Oct. 8, 10
24. *Parexocoetus brachypterus brachypterus* (Richardson): tsumari-tobi-uo (S)
CBM-ZF 2961 (1, 111 mm SL), Aug. 5

Family Belonidae

25. *Ablennes hians* (Valenciennes): hamadatsu (S)
CBM-ZF 3017 (1, 669 mm SL), Oct. 8

Order Beryciformes

Family Monocentrididae

26. *Monocentris japonica* (Houttuyn): matsukasa-uo (S)
CBM-ZF 3193 (1, 70 mm SL), Oct. 26

Family Trachichthyidae

27. *Paratrachichthys sajademalensis* Kotlyar: minami-haridashiebisu (S)
CBM-ZF 2887 (2, 53–63 mm SL), July 8

Order Zeiformes

Family Zeidae

28. *Zeus faber* Linnaeus: matôdai (S)
CBM-ZF 3252 (1, 292 mm SL), Dec. 3

Order Syngnathiformes

Family Fistulariidae

29. *Fistularia commersonii* Rüppel: akayagara (S)
CBM-ZF 2948 (1, 531 mm SL), July 28
30. *Fistularia petimba* Lacepède: ao-yagara (S)
CBM-ZF 2917 (1, 333 mm SL), July 15;
2948 (1, 531), July 28; 2963 (2, 161–174), Aug. 5

Family Syngnathidae

31. *Hippocampus takakurae* Tanaka: takakuratatsu (S)

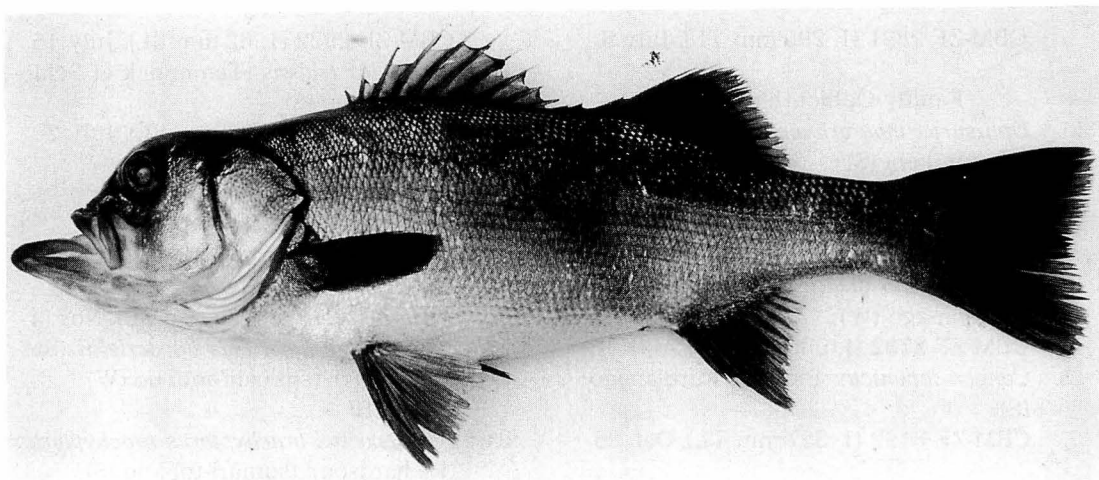


Fig. 2. Pugheaded *Lateolabrax latus* from Chitose, CBM-ZF 2735, 527 mm SL.

- CBM-ZF 3255 (1, 85 mm SL), Dec. 3
32. *Trachyrhamphus serratus* (Temminck et Schlegel): hifukiyôji (S)
CBM-ZF 3190 (1, 206 mm SL), Oct. 26
- Order Dactylopteriformes
Family Dactylopteridae
33. *Dactyloptena orientalis* (Cuvier): semi-hôbô (S)
CBM-ZF 2878 (1, 389 mm SL), July 8; 3257 (1, 43), Dec. 10
- Order Scorpaeniformes
Family Scorpaenidae
34. *Apistus carinatus* (Bloch et Schneider): hachi (S)
CBM-ZF 2960 (1, 100 mm SL), Aug. 5
35. *Pterois lunulata* Temminck et Schlegel: minokasago (W)
CBM-ZF 2947 (1, 192 mm SL), July 28
36. **Sebastes inermis* Cuvier: mebaru (W)
Dec. 18
- Family Congiopodidae
37. *Hypodytes rubripinnis* (Temminck et Schlegel): ha-okoze (S)
CBM-ZF 2882 (1, 72 mm SL), July 8
- Family Triglidae
38. *Chelidonichthys spinosus* (McClelland): hôbô (W)
CBM-ZF 2868 (1, 167 mm SL), July 2; 2872 (1, 73), July 2
39. *Lepidotrigla kishinouyei* Snyder: onikanagashira (S)
- CBM-ZF 2949 (1, 112 mm SL), July 28
40. *Lepidotrigla punctipectoralis* Fowler: hirehoshi-kanagashira (S)
CBM-ZF 2857 (1, 117 mm SL), July 2; 2871 (1, 96), July 2
- Family Platycephalidae
41. **Platycephalus indicus* (Linnaeus): kochi (S)
Oct. 8; Dec. 18
42. *Suggrundus meerdervoorti* (Bleeker): megochi (S)
CBM-ZF 2741 (1, 187 mm SL), May 13; 2866 (1, 194), July 2
- Order Perciformes
Family Percichthyidae
43. **Lateolabrax japonicus* (Cuvier): suzuki (W)
May 13; Nov. 25; Dec. 3, 18
44. *Lateolabrax latus* Katayama: hira-suzuki (S)
CBM-ZF 2735 (1, 527 mm SL), May 13
- Remarks. This specimen exhibited a morphological anomaly known as pug-headedness (Fig. 2). To our knowledge, this is the first record so far of such an anomaly in this species, although pug-headedness has been recorded in a congener, *Lateolabrax japonicus* (Matsusato, 1973).
45. *Synagrops japonicus* (Steindachner et Döderlein): sumikui-uo (W)
CBM-ZF 2902 (1, 96 mm SL), July 10

Family Serranidae

46. *Epinephelus septemfasciatus* (Thunberg): mahata (S)
CBM-ZF 3020 (1, 138 mm SL), Oct. 8

Family Teraponidae

47. *Terapon jarbua* (Forsskål): kotohiki (S)
CBM-ZF 2905 (2, 203–212 mm SL), July 10

Family Kuhliidae

48. **Kuhlia mugil* Bloch et Schneider: gin-yugoi (S)
July 8

Family Priacanthidae

49. *Cookeolus boops* (Schneider): chikame-kintoki (S)
CBM-ZF 2884 (1, 57 mm SL), July 8
50. *Priacanthus macracanthus* Cuvier: kintokidai (S)
CBM-ZF 2912 (1, 197 mm SL), July 15

Family Apogonidae

51. *Apogon endekataenia* Bleeker: kosujishimochi (S)
CBM-ZF 3189 (1, 44 mm SL), Oct. 26
52. *Apogon semilineatus* Temminck et Schlegel: nenbutsudai (S)
CBM-ZF 2744 (2, 87–96 mm SL), May 13; 2950 (1, 83), July 28

Family Sillaginidae

53. *Sillago japonica* Temminck et Schlegel: shiro-gisu (W)
CBM-ZF 2923 (1, 182 mm SL), July 15

Family Labracoglossidae

54. *Labracoglossa argentiventris* Peters: takabe (S)
CBM-ZF 2747 (2, 63–80 mm SL), May 13

Family Pomatomidae

55. *Scombrops boops* (Houttuyn): mutsu (W)
CBM-ZF 2748 (1, 103 mm SL), May 13

Family Carangidae

56. *Alectis ciliaris* (Bloch): itohiki-aji (S)
CBM-ZF 2911 (1, 41 mm SL), July 15; 3023 (1, 158), Oct. 8

57. *Carangoides orthogrammus* (Jordan et Gilbert): nanyō-kaiwari (S)
CBM-ZF 3212 (1, 258 mm SL), Nov. 4
58. *Caranx sexfasciatus* Quoy et Gaimard: gingame-aji (S)
CBM-ZF 3079 (1, 139 mm SL), Oct. 10
59. *Decapterus macrosoma* Bleeker: moro (W)
CBM-ZF 2859 (1, 116 mm SL), July 2
60. *Decapterus maruadsi* (Temminck et Schlegel): maru-aji (S)
CBM-ZF 2753 (3, 130–138 mm SL), May 13
61. **Decapterus muroadsi* (Temminck et Schlegel): muro-aji (S)
Nov. 4; Dec. 3
62. *Elagatis bipinnulata* (Quoy et Gaimard): tsumuburi (S)
CBM-ZF 3216 (1, 347 mm SL), Nov. 16
63. *Kaiwarinus equula* (Temminck et Schlegel): kaiwari (S)
CBM-ZF 2746 (1, 89 mm SL), May 13
64. *Naucrates ductor* (Linnaeus): burimodoki (W)
CBM-ZF 2883 (1, 77 mm SL), July 8; 2888 (1, 79), July 8
65. *Selar crumenophthalmus* (Bloch): me-aji (S)
CBM-ZF 2858 (1, 114 mm SL), July 2
66. *Seriola dumerili* (Risso): kanpachi (S)
CBM-ZF 2919 (2, 152–155 mm SL), July 15
67. **Seriola lalandi* Valenciennes: hiramasa (W)
May 13; Nov. 25
68. *Seriola quinqueradiata* Temminck et Schlegel: buri (W)
CBM-ZF 2875 (2, 200–205 mm SL), July 2
69. *Trachurus japonicus* (Temminck et Schlegel): ma-aji (W)
CBM-ZF 2750 (2, 63–167 mm SL), May 13
70. *Uraspis helvola* (Forster): oki-aji (S)
CBM-ZF 3211 (1, 304 mm SL), Nov. 4

Family Coryphaenidae

71. *Coryphaena hippurus* Linnaeus: shiira (S)
CBM-ZF 3213 (1, 67 mm SL), Nov. 6

- Family Leiognathidae
72. *Leiognathus elongatus* (Günther): hime-hiiragi (S)
CBM-ZF 3221 (1, 43 mm SL), Nov. 24;
3226 (1, 32), Nov. 25
73. *Leiognathus rivulatus* (Temminck et Schlegel): oki-hiiragi (S)
CBM-ZF 2916 (1, 65 mm SL), July 15;
3223 (2, 41–42), Nov. 24
- Family Emmelichthyidae
74. *Emmelichthys struhsakeri* Heemstra et Randall: rôsoku-chibiki (S)
CBM-ZF 2864 (1, 71 mm SL), July 2;
2869 (2, 47–51), July 2
- Family Haemulidae
75. *Hapalogenys nigripinnis* (Temminck et Schlegel): higedai (S)
CBM-ZF 3188 (1, 246 mm SL), Oct. 26
76. *Parapristipoma trilineatum* (Thunberg): isaki (S)
CBM-ZF 2743 (2, 90–100 mm SL), May 13
77. *Plectorhynchus cinctus* (Temminck et Schlegel): koshôdai (S)
CBM-ZF 3208 (1, 172 mm SL), Nov. 4;
3261 (1, 195), Dec. 16
78. *Plectorhynchus pictus* (Thunberg): koro-dai (S)
CBM-ZF 3187 (1, 213 mm SL), Oct. 26;
3218 (1, 227), Nov. 16
- Family Sparidae
79. **Evynnis japonica* Tanaka: chidai (W)
July 2, 8, 10; Oct. 10, 29; Dec. 18
80. **Pagrus major* (Temminck et Schlegel): madai (W)
May 13; July 2, 8, 28; Oct. 8, 20; Nov. 25; Dec. 18
- Family Lethrinidae
81. *Gymnocranius griseus* (Schlegel): mei-chi-dai (S)
CBM-ZF 3178 (1, 165 mm SL), Oct. 15
82. *Lethrinus nematacanthus* Bleeker: ito-fuefuki (S)
CBM-ZF 3196 (2, 72–78 mm SL), Oct. 26
- Family Sciaenidae
83. *Nibea mitsukurii* (Jordan et Snyder): nibe (W)
CBM-ZF 2901 (1, 199 mm SL), July 10
- Family Mullidae
84. *Mulloidichthys vanicolensis* (Valenciennes): akahimeji (S)
CBM-ZF 3219 (1, 167 mm SL), Nov. 18
85. *Parupeneus spilurus* (Bleeker): okina-himeji (S)
CBM-ZF 2913 (1, 149 mm SL), July 15
86. *Parupeneus* sp.
CBM-ZF 3209 (1, 38 mm SL), Nov. 4
- Remarks. Although we were unable to specifically identify this juvenile mullid, it was clearly referable to *Parupeneus* because of its dentition (in one row on both jaws) and the presence of a dark spot on the ventral side of the caudal peduncle.
87. *Upeneus bensasi* (Temminck et Schlegel): himeji (W)
CBM-ZF 3253 (1, 71 mm SL), Dec. 3
- Family Pempheridae
88. *Parapriacanthus ransonneti* Steindachner: kinmemodoki (S)
CBM-ZF 3197 (2, 32–64 mm SL), Oct. 26
89. *Pempheris japonica* Döderlein: tsumaguro-hatanpo (S)
CBM-ZF 3183 (1, 104 mm SL), Oct. 23
90. *Pempheris xanthoptera* Tominaga: minami-hatanpo (S)
CBM-ZF 3200 (2, 84–93 mm SL), Oct. 26
- Family Kyphosidae
91. *Girella punctata* Gray: mejina (W)
CBM-ZF 2736 (2, 131–215 mm SL), May 13
92. *Kyphosus lembus* (Cuvier): isuzumi (S)
CBM-ZF 3080 (1, 184 mm SL), Oct. 10
93. *Microcanthus strigatus* (Cuvier): kagokakidai (S)
CBM-ZF 2951 (2, 113–142 mm SL), July 28
- Family Ephippidae
94. *Platax pinnatus* (Linnaeus): akakukuri (S)
CBM-ZF 3076 (1, 272 mm SL), Oct. 10

Family Chaetodontidae

95. *Chaetodon auripes* Jordan et Snyder: chōchō-uo (S)
CBM-ZF 3077 (1, 112 mm SL), Oct. 10
96. *Chaetodon nippon* Döderlein: shirakodai (S)
CBM-ZF 2734 (1, 93 mm SL), May 13; 2740 (1, 94), May 13; 2863 (1, 63), July 2

Family Oplegnathidae

97. *Oplegnathus fasciatus* (Temminck et Schlegel): ishidai (W)
CBM-ZF 2737 (2, 115–125 mm SL), May 13
98. *Oplegnathus punctatus* (Temminck et Schlegel): ishigakidai (S)
CBM-ZF 3022 (1, 136 mm SL), Oct. 8

Family Embiotocidae

99. *Ditrema temmincki* Bleeker: umitanago (W)
CBM-ZF 2900 (1, 151 mm SL), July 10
100. *Neoditrema ransonneti* Steindachner: okitanago (S)
CBM-ZF 3195 (2, 92–99 mm SL), Oct. 26

Family Pomacentridae

101. *Abudefduf vaigiensis* (Quoy et Gaimard): oyabiccha (S)
CBM-ZF 3024 (2, 21–69 mm SL), Oct. 8

Family Cheilodactylidae

102. *Goniistius zebra* (Döderlein): migimaki (S)
CBM-ZF 2873 (1, 51 mm SL), July 2; 3021 (1, 230), Oct. 8
103. *Goniistius zonatus* (Cuvier): takanohadai (S)
CBM-ZF 2920 (1, 108 mm SL), July 15

Family Sphyrnidae

104. *Sphyrna japonica* Cuvier: yamato-kamasu (S)
CBM-ZF 2874 (3, 125–146 mm SL), July 2
105. *Sphyrna pinguis* Günther: aka-kamasu (S)
CBM-ZF 3215 (1, 183 mm SL), Nov. 6
106. *Sphyrna* sp.
CBM-ZF 3227 (1, 203 mm SL), Nov. 25

Remarks: This adult specimen of *Sphyrna* was distinguishable from other known species of the genus owing to the following characters: insertion of pelvic fin below second or third spines of first dorsal fin; insertion of anal fin just posterior to level of second dorsal fin insertion; and 10 large, dark spots along lateral line, with no dark or yellow narrow band below the latter.

Family Labridae

107. *Halichoeres poecilopterus* (Temminck et Schlegel): kyūsen (S)
CBM-ZF 2899 (1, 178 mm SL), July 10; 2906 (3, 150–164), July 10; 2918 (1, 227), July 15
108. *Pseudolabrus japonicus* (Houttuyn): sasanohabera (S)
CBM-ZF 2935 (1, 71 mm SL), July 17

Family Scaridae

109. *Calotomus japonicus* (Valenciennes): budai (S)
CBM-ZF 3256 (1, 166 mm SL), Dec. 10

Family Uranoscopidae

110. *Uranoscopus japonicus* Houttuyn: mishima-okoze (W)
CBM-ZF 3203 (1, 223 mm SL), Oct. 31

Family Blenniidae

111. *Petroscirtes breviceps* (Valenciennes): niji-ginpo (S)
CBM-ZF 3214 (1, 48 mm SL), Nov. 6

Family Callionymidae

112. *Repomucenus richardsonii* (Bleeker): nezumi-gochi (W)
CBM-ZF 2889 (1, 198 mm SL), July 8

Family Acanthuridae

113. *Acanthurus dussumieri* Valenciennes: nise-kanranhagi (S)
CBM-ZF 3259 (2, 85–86 mm SL), Dec. 10
114. *Acanthurus leucopareus* (Jenkins): sujikurohagi (S)
CBM-ZF 3182 (1, 82 mm SL), Oct. 23; 3185 (2, 75–83), Oct. 23
115. *Naso lopezi* Herre: naga-tenguhagi-

- modoki (S)
CBM-ZF 3217 (1, 465 mm SL), Nov. 16
116. *Naso unicornis* (Forsskål): tenguhagi (S)
CBM-ZF 3222 (1, 130 mm SL), Nov. 24
117. *Prionurus scalprum* Valenciennes: niza dai (W)
CBM-ZF 2870 (1, 152 mm SL), July 2
- Family Siganidae
118. *Siganus canaliculatus* (Park): shimofuriaigo (S)
CBM-ZF 2890 (1, 273 mm SL), July 8
119. **Siganus fuscescens* (Houttuyn): aigo (W)
Nov. 4, 25; Dec. 3
- Family Trichiuridae
120. *Trichiurus lepturus* Linnaeus: tachi-uo (S)
CBM-ZF 2867 (1, 441 mm SL), July 2; 2904 (1, 514), July 10
- Family Scombridae
121. **Auxis rochei* (Risso): marusôda (S)
Oct. 8, 10, 20; Nov. 4, 25; Dec. 3, 12
122. **Auxis thazard* (Lacepède): hirasôda (S)
Oct. 8, 10, 20; Nov. 4, 25; Dec. 3, 12
123. *Sarda orientalis* (Temminck et Schlegel): hagatsuo (S)
CBM-ZF 2855 (1, 179 mm SL), July 2
124. *Scomber australasicus* Cuvier: gomasaba (W)
CBM-ZF 2749 (2, 131–137 mm SL), May 13
125. *Scomber japonicus* Houttuyn: masaba (W)
CBM-ZF 3254 (1, 191 mm SL), Dec. 3
126. **Scomberomorus niphonius* (Cuvier): sawara (S)
July 10
127. **Thunnus thynnus* (Linnaeus): kuromaguro (W)
July 28; Nov. 4, 25
- Family Centrolophidae
128. *Psenopsis anomala* (Temminck et Schlegel): ibodai (W)
CBM-ZF 2903 (1, 145 mm SL), July 10
- Family Nomeidae
129. *Psenes arafurensis* Günther: kurage-uo (S)
CBM-ZF 2914 (1, 74 mm SL), July 15
- Order Pleuronectiformes
- Family Bothidae
130. *Paralichthys olivaceus* (Temminck et Schlegel): hirame (W)
CBM-ZF 3186 (1, 152 mm SL), Oct. 26; 3191 (2, 165–168), Oct. 26
131. *Pseudorhombus pentophthalmus* Günther: tama-ganzôbirame (W)
CBM-ZF 2733 (1, 156 mm SL), May 13
- Family Pleuronectidae
132. *Pleuronichthys cornutus* (Temminck et Schlegel): meitagarei (W)
CBM-ZF 3224 (1, 191 mm SL), Nov. 25
- Family Cynoglossidae
133. **Paraplagusia japonica* (Temminck et Schlegel): kuro-ushinoshita (W)
Oct. 29
- Family Soleidae
134. *Zebrias zebra* (Schneider): shima-ushinoshita (W)
CBM-ZF 2934 (1, 163 mm SL), July 17; 3258 (1, 183), Dec. 10
- Order Tetraodontiformes
- Family Balistidae
135. *Aluterus monoceros* (Linnaeus): usubahagi (S)
CBM-ZF 3018 (1, 307 mm SL), Oct. 8
136. *Aluterus scriptus* (Osbeck): sôshihagi (W)
CBM-ZF 2880 (1, 174 mm SL), July 8
137. *Stephanolepis cirrhifer* (Temminck et Schlegel): kawahagi (W)
CBM-ZF 3205 (1, 115 mm SL), Oct. 31
138. *Sufflamen fraenatus* (Latreille): meganehagi (S)
CBM-ZF 2915 (1, 34 mm SL), July 15
139. *Thamnaconus modestus* (Günther): umazurahagi (W)
CBM-ZF 3204 (1, 180 mm SL), Oct. 31
- Family Ostraciidae
140. *Lactoria diaphana* (Bloch et Schneider): umisuzume (S)
CBM-ZF 2862 (1, 96 mm SL), July 2
141. *Lactoria fornasini* (Bianconi): shima-

- umisuzume (S)
CBM-ZF 3181 (1, 67 mm SL), Oct. 23;
3194 (2, 60–72), Oct. 26
142. *Ostracion immaculatus* (Temminck et Schlegel): hakofugu (W)
CBM-ZF 3019 (1, 166 mm SL), Oct. 8
143. *Tetrosomus concatenatus* (Bloch et Schneider): hamafugu (S)
CBM-ZF 2861 (1, 134 mm SL), July 2

Family Tetraodontidae

144. *Canthigaster rivulata* (Temminck et Schlegel): kitamakura (S)
CBM-ZF 2745 (2, 57–89 mm SL), May 13
145. *Lagocephalus wheeleri* Abe, Tabeta et Kitahama: shiro-sabafugu (W)
CBM-ZF 2865 (1, 67 mm SL), July 2;
2936 (1, 100), July 17
146. *Takifugu chrysops* (Hilgendorf): akamefugu (S)
CBM-ZF 2731 (1, 177 mm SL), May 13;
2738 (1, 156), May 13
147. *Takifugu pardalis* (Temminck et Schlegel): higanfugu (W)
CBM-ZF 3225 (1, 192 mm SL), Nov. 25

Family Diodontidae

148. *Chilomycterus affinis* Günther: ishigakifugu (S)
CBM-ZF 3250 (1, 334 mm SL), Dec. 1
149. *Diodon holocanthus* Linnaeus: harisenbon (S)
CBM-ZF 3251 (1, 95 mm SL), Dec. 1

Family Molidae

150. **Mola mola* (Linnaeus): manbō (W)
July 10; Nov. 25; Dec. 3

Discussion

A total of 150 species of fishes (including two unidentified species) representing 73 families and 124 genera were recognized in the set-net catches off Chitose. Undoubtedly, more species remain to be recorded, because the present study covered only six months between May and December and was limited in the number of surveys. Also, it was evident that the set net selectively caught coastal pelagic species rather than benthic, more oceanic or deep-sea, or more inshore fishes, such as small gobies. Therefore, as pointed

out by Miya *et al.* (1994), additional sampling methods should be employed in a future for a more complete assessment of the ichthyofaunal composition of the area.

Miya *et al.* (1994) examined set-net catches off Ainohama, west of Chitose across the Nojima Point, and listed 133 species representing 72 families and 111 genera. Of those, 92 species were recorded during the present study. Conversely, 58 species (including those unidentified) recorded in this study were not listed by Miya *et al.* (1994). In all, resulting in a total of 191 species are now recognized from the two areas, a number which may well represent the coastal pelagic ichthyofauna of the southernmost part of the Boso Peninsula.

Of the 56 and 41 species that were represented solely in the collections from Chitose (present study) and Ainohama (Miya *et al.*, 1994), respectively, 45 (79%) and 32 (78%) were southern species, whereas the remainder being wide-ranging. Because no major differences occurred between the two areas, in terms of the above zoogeographic categories, the small difference in the number of species recorded during the two studies (150 in Chitose vs. 133 in Ainohama collections) may not necessarily be indicative of small-scale, geographic differences between the two areas. However, it should be noted that some occasionally common species in Chitose, such as subtropical/tropical *Chaetodon nippon* and oceanic *Mola mola*, were not recorded at Ainohama, whereas three inshore species of the cottid genus *Pseudoblennius*, common at Ainohama, were not recorded at Chitose. This suggests a more oceanic nature for Chitose.

Of the 148 identified species from the set-net catches off Chitose, 70% (103 spp.) have their distribution centers located south of the peninsula, whereas the remaining 30% (45 spp.) are relatively wide-ranging, extending the length of Japan. In addition, no species whose distribution centers are located north of the peninsula were recorded. The predominance of more southern species over those more wide-ranging, together with the absence of northern species, are similar to the ichthyofaunal characteristics of Ainohama (69% southern, 31% wide-ranging; Miya *et*

al., 1994), further evidence of the strong influence of the warm Kuroshio current on the zoogeography of the southernmost part of the Boso Peninsula.

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房総半島産の魚類—II

千倉町千歳沖合の定置網の漁獲物 から収集された魚類

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1992年5月から12月の計29回にわたって、千倉町千歳沖合の定置網の漁獲物にみられた魚類を調査した結果、73科124属からなる150種の魚類(同定できなかったもの2種を含む)が確認された。同定できた148種のうちの103種(70%)は、分布の中心を南日本(房総半島より南)にもつ南方種であり、また、残りの45種(30%)は、南北日本に広く分布する広域種であった。一方、分布の中心を北日本(房総半島より北)にもつ北方種は、今回の調査ではまったくみられなかった。このように南方種が卓越し、北方種が欠如するという傾向は、館山市相浜沖合の定置網の漁獲物に基づいて行われた同様の調査でも確認されており、半島の沖合を北に向かって流れる黒潮に大きく影響を受ける房総半島南端の魚類相の特徴を反映したものと考えられた。