First Record of the Coral Catshark,
Atelomycterus marmoratus,
from Kuchierabu Island, Southern Japan

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The coral catshark, Atelomycterus marmoratus
(Bennett, 1830), is widely distributed in the Indo-
West Pacific, from Pakistan to Taiwan, and to New
Guinea (Compagno, 1984b). A relatively common,
coral reef inhabitant, this harmless species forms
a minor catch of inshore artisanal fisheries
(Compagno, 1984b). While examining coral reef
fishes collected by KG in the 1970s during an eco-
logical study of the coral reef fishes around Kuchi-
erabu Island (38°28'N, 130°10'E), off Kyushu (Fig.
1), a number of catshark specimens were found.
Fourteen specimens were subsequently identified as
A. marmoratus, being the first record of that species
from Japan. The specimens are described in detail
below, since they represent a noteworthy northern
range extension of A. marmoratus.

The method for measurements followed Compa-
gno (1984a). The specimens are deposited in Kochi
Senior High School, KSHS.

Atelomycterus marmoratus (Bennett, 1830)
(New Japanese name: Sango-torazame)
(Figs. 2, 3)

Materials. KSHS 22355, male, 607 mm TL (total
length), Kuchierabu I., depth unknown, Oct. 1970; KSHS
22350–22354, 22357, 22359, 22360, 7 males, 496–645 mm
TL, KSHS 22348, 22349, 22352, 22356, 22361, 5 females,
520–612 mm TL, Nishiura Bay, Kuchierabu I., sandy
bottom encircled by dead corals, 7 m depth, gill net, Aug.
1971; KSHS 22358, female, 585 mm TL, Homura Bay,
Kuchierabu I., angled from sandy bottom with large rocks,

Table 1. Total length and proportional measure-
ments (in % of TL) of 14 Atelomycterus marmo-
ratus specimens from Japan

<table>
<thead>
<tr>
<th></th>
<th>8 males</th>
<th>6 females</th>
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<tbody>
<tr>
<td>Total length (mm)</td>
<td>496–645</td>
<td>520–612</td>
</tr>
<tr>
<td>Head length</td>
<td>17.3–18.9</td>
<td>17.0–18.9</td>
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<tr>
<td>Pre-first dorsal length</td>
<td>40.0–43.7</td>
<td>41.0–44.1</td>
</tr>
<tr>
<td>Pre-second dorsal length</td>
<td>62.6–65.9</td>
<td>63.3–67.4</td>
</tr>
<tr>
<td>Prepectoral length</td>
<td>16.6–17.9</td>
<td>16.0–18.2</td>
</tr>
<tr>
<td>Prepelvic length</td>
<td>35.7–37.8</td>
<td>36.9–38.8</td>
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<tr>
<td>Preanal length</td>
<td>58.8–63.8</td>
<td>61.0–64.1</td>
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<tr>
<td>Pelvic–anal space</td>
<td>17.4–20.6</td>
<td>18.9–20.0</td>
</tr>
<tr>
<td>Preorbital length</td>
<td>4.0–5.9</td>
<td>5.1–5.8</td>
</tr>
<tr>
<td>Preoral length</td>
<td>3.6–5.4</td>
<td>3.4–4.0</td>
</tr>
<tr>
<td>Mouth width</td>
<td>6.6–7.1</td>
<td>6.0–7.7</td>
</tr>
<tr>
<td>Clasper inner length</td>
<td>4.6–14.4</td>
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<tr>
<td>Interorbital space</td>
<td>4.9–5.2</td>
<td>4.7–5.0</td>
</tr>
<tr>
<td>Eye length</td>
<td>2.4–3.0</td>
<td>2.6–3.4</td>
</tr>
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Description. Total lengths and proportional
measurements are given in Table 1.

Body moderately slender, cylindrical; tail com-
pressed (Fig. 2a). Head slightly depressed; inter-
orbital space flat. Snout short, round; preoral length
about 1/2 mouth width. Eyes small, oblong, length
less than 1/2 interorbital width. Anterior nasal flaps
Fig. 2. a) *Atelomycterus marmoratus*, KSHS 22354, male, 645 mm TL, Kuchierabu Island; b) ventral view of head of KSHS 22354; c) upper (top), and lower tooth, from near symphysis, *A. marmoratus*, KSHS 22359, male, 630 mm TL, from Kuchierabu Island.

Fig. 3. Dorsal view of clasper glans of *Atelomycterus marmoratus*, KSHS 22354.

Length of claspers of KSHS 22357 (495 mm TL) enlarged, very broad, reaching posteriorly to mouth (Fig. 2b); nasoral grooves present. Mouth semicircular; preoral length shorter than snout length. Labial furrow on upper jaw longer than that on lower jaw (Fig. 2b). Teeth small; lower jaw teeth with 3-5 cusps, middle one largest; upper jaw teeth tricuspid, slightly smaller than lower jaw teeth (Fig. 2c).

Two dorsal fins about equal in size; 1st dorsal fin at middle of body, originating over posterior half of pelvic fin base, rear end of 1st dorsal fin base beyond rear margin of pelvic fin; origin of 2nd dorsal fin above first quarter of anal fin base. Anal fin much smaller than 2nd dorsal fin. Caudal fin broad, short, less than 1/6 TL. No supracaudal crests on denticles. Pectoral fin originating below 4th gill slit.

Length of claspers of KSHS 22357 (495 mm TL)
1/5 of distance between posterior end of pelvic fin base and anal fin origin; those of remaining adults (570–645 mm TL) longer than 2/3 same. Clasper glans rather round (Fig. 3).

Color in preservative.—Ground color of body and fins dark brown, belly whitish. Small, white spots scattered on all fins, and lateral and dorsal surfaces of body; larger white spots on lower body, outlined by vague, blackish spots, sometimes adjoining neighboring spots. Dorsal fin tips white.

Remarks. Following Compagno (1984b), the present material was as belonging to the catshark genus *Atelomycterus*, owing to the approximately equally-sized dorsal fins, greatly expanded anterior nasal flaps reaching the mouth, and the presence of nasoral grooves and long labial furrows. Although Springer (1979) doubted the validity of the latter, Compagno (1984b) showed the genus to be represented by two species: *A. marmoratus* (Bennett, 1830) and *A. macleayi* Whitley, 1939. The color pattern of both species is highly variegated, the former being distinguished from the latter, known only from Northern and Western Australia and Queensland, in lacking grey saddle markings (present in the latter), and having extremely attenuated adult male claspers, reaching about at least 2/3 of the distance between the pelvic fin insertion and the anal fin origin (stout, moderately elongated, reaching about halfway of the same distance) (Compagno, 1984b). Compagno (1984b) considered that adult male *A. marmoratus* ranged from 470 to 620 mm. Although the 495 mm TL male specimen had short claspers, reaching 1/5 of the pelvic fin insertion-anal fin origin distance, the length of the claspers of the second smallest male (575 mm TL) 71% of same, suggested the former to be immature. All specimens examined were devoid of saddle markings.

Teng (1958) first recorded the occurrence of *A. marmoratus* from Taiwan on the basis of a single specimen from Peng-chia Hsii, a small island in the northernmost district of Taiwan. Judging from Chen and Joung (1993), no further Taiwanese records have been added. Yoshino and Aonuma (1993) recorded 15 catshark species, except for *A. marmoratus*, from Japan, despite the latter being frequently caught by hook and line along the coasts of Kuchierabu Island (KG, pers. obs.). The present record represents a northern range extension of *A. marmoratus*, and confirms the species as a shallow coral reef inhabitant.

Acknowledgments

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Literature Cited


