

On a new wry-mouth fish found in Japan

by

TOYOJI HIKITA
(Hokkaido University)

and

TOYOHICO HIKITA
(Hokkaido Central Hatchery)

The genus *Lyconectes* belonging to the family *Cryptacanthodiidae* was erected by Ch. H. Gilbert in 1893 based on only one northern Pacific species, *Lyconectes aleutensis*. Recently two specimens of the genus were secured by the present writers, separately from off the coasts of Kushiro and Abuta in Hokkaido, 1949. They seem to belong to a species, probably new to science.

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Lyconectes ezoensis, new species

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Head 7.48 in length; depth 13.63; eye 14.5 in head; snout 7.48; interorbital width 4.14; maxillary 2.90; postorbital part 1.61; length of mouth cleft 3.22; width of mouth angles 4.63; fifty-third longest dorsal spine 4.14; thirty-fifth longest anal ray 2.90; pectoral 4.63; caudal 1.45;

Body elongate and slender, compressed, wholly naked; head oblong, subquadrangular, the depth and width nearly equal; mouth subvertical, large; lower jaw very heavy, its tip projecting; the exposed portion of maxillary triangular, its end extending to a vertical through posterior rim of eye. Teeth very large, strong, cylindrical, obtuse, few in number; those in premaxillary arranged sparsely in 2 rows, 8 on each side, the inner 4 teeth are smaller than the outer ones which project from mouth; teeth in mandible in a single series laterally, becoming 2 series toward symphysis, 13 on each side, 3 strong obtuse

conical teeth on head of vomer; 2 similar teeth on palatines. A long nostril tube overhangs the upper lip. Eye extremely small, sunken in the socket, its diameter less than $1/2$ interorbital width; supraorbital rim not elevated, and containing no conspicuous projection; suborbital rim swollen, with an enlarged mucous channel; a conspicuous series of mucous pits along each mandible and the margin of preopercle; on top of head 3 series of the pit seen, the middle series composed of 3 pits, anterior 2 pits along deep on the interorbital width but the last is a shallow large triangular depression on occiput; anterior 3 pits on each side divided into preocular, supraocular and postcurar, those pits containing backward to above opercle. Gill slit rather narrow, its length nearly equals to the distance between lower ends of gill slits, which casing opposite middle of base of pectorals; the gill membrane widely jointed to isthmus, with 6 branchiostegals which are very strong; gill 4, slit behind the fourth small; gill-rakers very small, tubercle-like $2/10$ on the first arch; Pseudobranchiae small. Dorsal and anal wholly jointed to caudal, spines of dorsal rather stiff and sharp, concealed in heavy fin membrane; origin of dorsal above base of pectorals. Hinder margin of occiput midway between front of dorsal and middle of eye. Anal inserted below 22nd dorsal spine, its origin well in advance of middle of body length, its distance from tip of snout contained $1 \frac{1}{3}$ times in its distance from base of caudal; anal a little higher than dorsal. Pectoral short, rounded and placed with low position, its base separated by a wide prepectoral area (*Musculus levator pinne pectoralis*) from gill slit, the width of area $1/2$ length of fin which equaling to interorbital width. No ventral fin. Body covered with lax naked skin; lateral line present, anterior 5 lateral pores arranged along back of body, from 2nd dorsal spine to 7th spine but from below the 5th pore about 63 lateral pores continuous, straight, median to caudal. Stomach is large, straight, similar shape in everywhere and lined with a few longitudinal folds along its inner wall, the cardiac portion of the stomach extend slightly backward as a blind sac at its distal end. Small intestine moderately long, somewhat coiled. Pyloric coeca very small, projected from duodenum as only two rudimentary processes. Liver rather large, darkish

yellow in preserve condition and deeply divided into 2 lobes, the left lobe a little longer. Gill-bladder oblong situated between posterior parts of both lobes of liver in detached place from liver. Bile duct which opened into duodenum received to hepatic ducts from both lobes of liver, nearly on its middle part. Kidney are paired organ lying side by side as common fishes, along the whole length of the dorsal wall of the abdominal cavity and the posterior part well developed. Right and left testes contact along their inner sides and sperm which produced from them carried out by only one vas deference.

color in formalin; Back and dorsal grayish; head and nape above darkish brown, sides and belly white; a row of darkish brown spots arranged along lateral pores another two rows on the back, spots of upper row of the back arranged from origin of dorsal to caudal and those of the lower smaller, from below 8th dorsal spines to about 44th dorsal spine; dorsal speckled with darkish brown blotches (above spots and blotches formed with minute dots; anal colorless; caudal dusky; peritonium white. In life the body is reddish due to the blood vessels in the skin.

This species is very closely allied to *Lyconectes aleutensis* but differs from it in having palatine teeth, lateral pores, 3 series of pits on the top of head and dark brown spots or blotches on the body and dorsal fin.

Here described from the type, 218mm, in length from Kushiro, at about 50 fathoms and cotype 137mm, length from Abuta at about 59 fathoms.

