

## DESCRIPTION OF A NEW SPECIES OF PARALEPIS (PARALEPIS CORUSCANS), FROM THE STRAITS OF JUAN DE FUCA.

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*Paralepis coruscans*, sp. nov.Allied to *P. borealis* Reinh.

Head and body very elongate, compressed, almost ribbon-shaped, of uniform width throughout, and preserving its depth forwards to occiput and backwards to origin of dorsal fin. From the insertion of the dorsal the body is gradually narrowed to the very slender caudal peduncle, the base of anterior portion of anal projecting much beyond the ventral outline.

Abdomen compressed, subtrenchant.

Head long, wedge-shaped, its upper and lower outlines equally oblique. Snout very long and sharp, equaling half the length of the head, its tip on a line with the axis of the body. Eye large, its diameter one-third the length of the snout, placed high, with its upper margin on a level with the top of the head.

Head shaped somewhat as in *Sphyrana*. Jaws equal; gape very wide; maxillary reaching the vertical from the nostril; mandibular joint reaching the vertical from the anterior margin of the pupil.

Mandible closing inside the margins of the upper jaw, the latter being transversely much arched to receive it; tip of mandible fitting into an emargination between the intermaxillaries.

None of the teeth very large or fang-like. Intermaxillaries laterally with a single series of exceedingly minute teeth (as in *Engraulis*); anteriorly, however, on each side is a series of 4 or 5 rather long acicular teeth; the entire intermaxillary series is outside of the mandible in the closed mouth. Vomer with minute teeth. Palatine series long; the anterior teeth long and slender; the posterior short. Mandibular series working against the palatines; the teeth slender, distant, of different lengths.

Branches of the lower jaw transversely deeply concave. Maxillary and intermaxillary slender, intimately connected, sliding under a fold of the skin.

All the bones of the head very thin, flexible, membrane-like. Pre-orbital long, very narrow, arched, extending forwards from orbit, reaching maxillary midway of its length. Suborbital chain likewise narrow.

Head with numerous sharp ridges; two forwards from the orbit; two pairs on the top of the head, converging forwards. Orbital ring slightly raised. Preopercular margin very oblique. Opercle with concentric striae and radiating lines.

Gill-openings very wide, extending forwards to vertical from nostril; isthmus anteriorly much compressed, thin and membrane-like, the gills of the two sides lapping over and meeting across the ridge. Mandibular rami and subopercles and interopercles of the two sides meeting below across the isthmus.

Gill-rakers similar on all the arches, short, immovable, much broader than long, each provided with 4 or 5 short needle-like spines. A slit behind fourth gill. Pseudobranchiæ developed, partly hidden by a fold of the membrane. Branchiostegals 7, the membranes overlapping anteriorly, as in the *Salmonide*.

Scales small, deciduous; those of the lateral line large, non-imbricate, plate-like, becoming smaller posteriorly, the series terminating abruptly opposite middle of the base of the anal.

Fins all very small. Pectorals placed low, their length two-fifths that of the snout. Ventrals far back, entirely behind the dorsal, their distance from base of caudal half that from front of orbit. Distance from middle of dorsal basis to base of caudal half its distance from the tip of the snout.

Anal elongate, high anteriorly, its base terminating at a point distant one-half diameter of orbit from base of caudal. Adipose dorsal high and narrow, directly over the end of the anal.

Caudal small, widely forked, the middle rays two-fifths the length of longest. End of caudal peduncle emarginate, the caudal rays radiating from the upper and lower angles. (In the type specimen the two lobes of caudal are entirely separate, without trace of connecting membrane.) Rudimentary rays long, extending along upper and lower sides of caudal peduncle for a distance greater than diameter of orbit. Tips of adipose dorsal and posterior anal rays reach rudimentary caudal rays.

Dorsal rays 8; anal rays 31; pectoral rays 11; ventral rays 9; lateral plates 60. Vent slightly behind base of ventral fins.

Color, in spirits, light olive-brown, becoming darker on the back, belly, and towards the tail. Above with a few small, distinct, black dots. Sides with some light brownish-yellow shading, a very narrow, lengthwise, silvery streak along the middle of the abdomen. Base of pectoral silvery, with a dark spot above. Bases of other fins jet-black, the color usually extending on the bases of the rays.

Sides of head silvery; opercles, top of head, and tip of snout dark; mandibular rami bright silvery, and provided each with a double series of minute "phosphorescent" spots.

This species is known to us from a single specimen obtained in the harbor of Port Townsend, Wash., by Mr. Brown, assistant in the custom-office at Port Townsend, and by him presented to the United States National Museum. The type is  $9\frac{1}{4}$  inches in length, and is in good condition.

Table of measurements.

Collector's number of specimen .....	150	
Locality .....	Port Townsend, Wash.	
	Inches and 100ths.	100ths of length.
Extreme length .....	9.25	.....
Length to end of middle caudal rays .....	8.75	.....
Body:		
Greatest height .....		7 $\frac{3}{4}$
Height at ventrals .....		6
Least height of tail .....		2 $\frac{1}{2}$
Head:		
Greatest length .....		2 $\frac{1}{2}$
Width of interorbital area .....		2 $\frac{2}{3}$
Length of snout .....		11 $\frac{1}{2}$
Length of maxillary .....		9
Length of mandible .....		12 $\frac{1}{2}$
Diameter of orbit .....		3 $\frac{1}{2}$
Dorsal (rayed):		
Distance from snout .....		55 $\frac{1}{2}$
Length of base .....		2 $\frac{1}{2}$
Height at fourth ray .....		5
Dorsal (adipose):		
Distance from dorsal .....		29 $\frac{1}{2}$
Height at longest ray .....		2 $\frac{1}{2}$
Anal:		
Distance from ventral base .....		11 $\frac{1}{2}$
Length of base .....		15
Height at longest ray (ca.) .....		6
Caudal:		
Length of middle rays .....		2 $\frac{1}{2}$
Length of external rays .....		6
Pectoral:		
Distance from snout .....		24
Distance from dorsal outline .....		3 $\frac{1}{2}$
Length .....		5
Ventral:		
Distance from snout .....		59 $\frac{1}{2}$
Length .....		3 $\frac{3}{4}$
Branchiostegals .....	7	.....
Dorsal .....	8	.....
Anal .....	31	.....
Pectoral .....	11	.....
Ventral .....	9	.....
Number of scales in lateral line .....	60	.....

PORT TOWNSEND, WASH., *September 30, 1880.*

**PRELIMINARY NOTICE OF THE CRUSTACEA DREDGED, IN 64 TO 325 FATHOMS, OFF THE SOUTH COAST OF NEW ENGLAND, BY THE UNITED STATES FISH COMMISSION IN 1880.**

**By S. I. SMITH.**

A general account of three short dredging trips of the United States steamer Fish Hawk to the region, off the eastern end of Long Island, known as the Block Island soundings, has already been given by Professor Verrill in these Proceedings, and also in the American Journal of Science for the present month (vol. xx, pp. 390-403), and need not be repeated here, further than that the region examined is in latitude 39° 46' to 40° 06' north, longitude 70° 22' to 71° 10' west, and that on the first trip, September 3 to 5, eight hauls (stations 865 to 872) were made, at depths ranging from 64 to 192 fathoms; on the second trip, September 12 to 14, nine hauls (stations 873 to 881) were made, in 85 to 325 fathoms;