NATIONAL BIORESOURCE DEVELOPMENT BOARD
Dept. of Biotechnology
Government of India, New Delhi

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MARINE BIORESOURCES
FORMS DATA ENTRY**:** Form- 1(general **)** Ref. No.:
(please answer *only* relevant fields; add additional fields if you require)

Fauna : √ Flora Microorganisms

General Category : Vertebrate (Zooplankton) Fish larvae

Scientific name &Authority: *Engyprosopon grandisquamis* (Temminck and Schlegal) 1846 - Adult

Common Name (if available) :

Synonyms:	Author(s)	Status
Rhombus grandisquama	Temminck and Schlegal	1846
Rhombus poecilurus	Bleeker	1862
Rhomboidichthys grandisquama	Gunther	1865
Pseudorhombus poecilurus	Bleeker	1866-72
Platophrys (Arnoglossus) *poecilurus*	Bleeker	1880
Rhomboidichthys spilurus	Gunther	1882
Rhomboidichthys spiniceps	Macleay	1902
Rhomboidichthys poecilurus	Regan	1904
Arnoglossus spilurus	Johnstone	1902
Scaeops grandisquama	Jordan and Starks	1904, 1906
	Fowler and Bean	1922
	Von Bonde	1925
	Barnard	1925
Scaeops poecilurus	Jordan and Starks	1905
	Regan	1908
	Weber	1913
	Fowler	1928
Scaeops spilura	Jordan and Seale	1906
	Jordan and Richardson	1909
	Oshima	1927

Scaeops orbicularis	Wu	1932
	Fowler	1928
Rhomboidichthys valderostratus	Jerkins	1910
Platophrys grandisquama	Gilchrist and Thompson	1917
Platophrys spiniceps	Mc Culloch	1921
Engyprosopon (Scaeops) *grandisquama*	Mc Culloch and Whitely	1925
Engyprosopon grandisquama	Norman	1926, 27,34,39.
	Mc Culloch	1929
	Kamohara	1936, 38, 50
	Okada and Matsubara	1938
	Kuronuma	1939
	Blegrad	1944
	Liang	1948
	Smith	1949
	Munro	1955, 58
	Kuroda	1951
	Okada	1955
	Mori	1956
	Punpoka	1964
Bothus (Arnoglossus) *poecilurus*	Weber and Beaufort	1929
	Suratti	1936
Engyprosopon grandisquamis	Nielsen	1984

Classification:

Phylum: Vertebrata	Sub- Phylum	
Super Class : Pisces	Class : Osteichthyes	Sub- Class:
Super Order: Teleostei	Order: Pleuronectiformes	Sub Order : Pleuronectoidei
Super Family:	Family : Bothidae	Sub-Family:Bothinae
Genus : *Engyprosopon*	Species : *grandisquamis*	

Authority: Temminck and Schlegal

Reference No.

Temminck,C.J. and H.Schlegal, 1842. Pisces. SIEBOLD's Fauna Japonica, 323 pp., 143 pls, supl. Pl. A. Leiden.

Geographical Location:

The larvae were found to dominate over other species in Bay of Bengal. Also found in Arabian Sea along the Indian coast as well as in the Gulf of Aden, west coast of Australia and in Malacca strait.

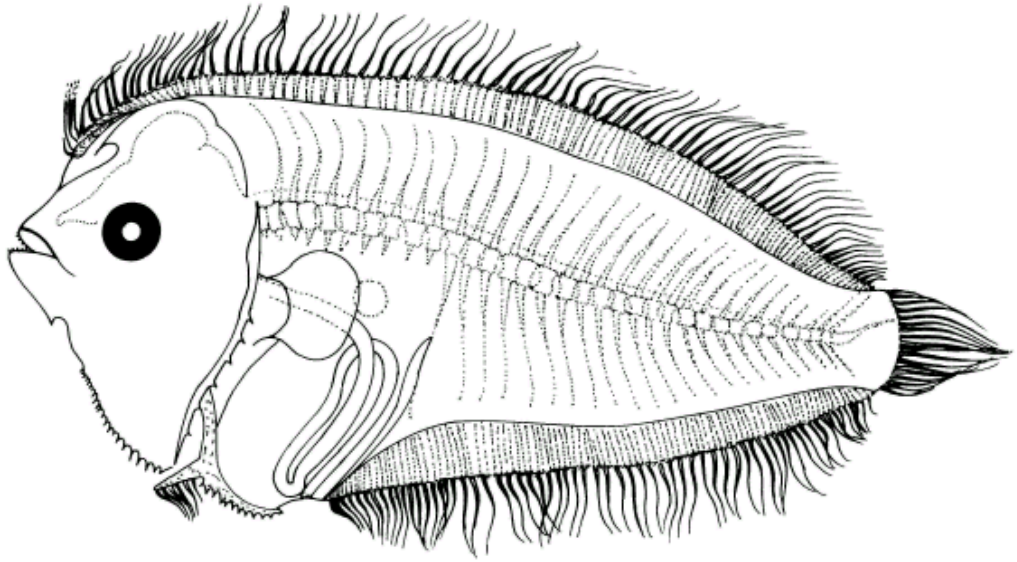
Latitude: Place:

Longitude: State:

Environment

Fresh water : Yes/ No	Habitat :	Salinity : 32.47-36.57PSU
Brackish : Yes/ No	Migrations :	Temperature : 12-30°C
Salt water : Yes/ No	Depth range : 60-3111 m	

Picture (scanned images or photographs of adult / larval stages)



Engyprosopon grandisquamis, 8.8 mm SL, from Lalithambika Devi, 1999

DATA ENTRY FORM: Form- 2(Fish / shellfish / others)
(please answer only relevant fields ; add additional fields if you require)
Form –1 Ref.No.:

IMPORTANCE

Landing statistics (t/y) : from to Place : Ref . No.:
Main source of landing : Yes/ No Coast: east/ west
Importance to fisheries :
Main catching method :
Used for aquaculture :yes/ never/ rarely
Used as bait: yes/no/ occasionally
Aquarium fish :yes/ no/ rarely
Game fish : yes/ no
Dangerous fish :poisonous/ harmful/ harmless
Bioactivity : locally known/ reported/ not known Details:
Period of availability: Throughout the year – yes/ no If no, months:

SALIENT FEATURES :

Morphological: See first column of last page

Diagnostic characteristics: - " "

Sex attributes:

Descriptive characters: " "

Meristic characteristics : Dorsal fin rays 78-95, Anal fin rays 56-73 and 10+23-25 Vertebrae

Feeding habit:
Main food :
Feeding type :

Additional remarks :

Size and age :

Maximum length (cm) (male / female/ unsexed) Ref. No.:
Average length (cm) (male / female / unsexed) Ref . No.:
Maximum weight : (g) (male / female / unsexed) Ref.No.:
Average weight :(g) (male / female / unsexed) Ref No.:
Longevity (y) (wild) : (captivity) Ref . No.:
Length / weight relationalships:

Eggs and larvae: Ref . No.:
Characteristics:

Larval body diaphanous and symmetrical in early stages. Eyes are prominent. Anterior portion of the alimentary canal runs almost parallel to notochord and bends down at posterior end of the abdominal cavity, where it makes a single circular coil turns elliptical in advanced forms, this coil becomes compact, the anus moves forwards to the level of the eighth vertebral segment. Liver occupies the space between the cleithra and the intestinal loop, its antero-posterior axis is more than that of the dorso-ventral axis in preflexion and flexion stages, but in advanced forms dorso-ventral gains over the antero-posterior axis. A small but conspicuous swim bladder presses against the intestine downwards at its middle region in early stages, but later it occupies the space between seventh and ninth vertebral segments and lies obliquely downwards. A diverticulum is seen hanging from the urohyal region just in front of the sciatic portion of the larvae in early stages which may be designated as the urohyal appendage marked by a brownish black pigment blotch at its base. It shrivels up and the pigment is not traceable after 3.8 mm NL whereas a loose fold of skin is seen in the place of the appendage up to 5.5 mm NL. The pigments are not seen any where else on the body.

Spines are found on urohyal (2-24), cleithra (2-9) and posterior basipterygial processes (2/2-11/11) which end in spine. In early stages (2.3 and 2.5 mm NL) they occur only on urohyal and that too only two or three in number, those on the left ramus of the posterior basipterygial process do not juxtapose with those of the right ramus and hence are counted and represented separately. There are 78 - 95 dorsal, 56 - 73 anal rays and 10+23-25 vertebrae including urostyle.

Abundance:

Biochemical aspects:
Proximate analysis: moisture/ fat/ protein/ carbohydrate/ash Ref. No.
Electrophoresis: Ref. No.

SPAWNING INFORMATION:
Locality: Main Ref:
Season:
Fecundity:
Comment:

MAJOR PUBLICATIONS (INDIAN):
(include review articles, monographs, books etc.)

Lalithambika Devi, C.B., 1986. Studies on the flat fish (Heterosomata) larvae of the Indian Ocean. Ph.D. Thesis, University of Kerala, India, 480 pp.

Lalithambika Devi, C.B., 1999. Bothid larvae (Pleuronectiformes-Pisces) of the Indian Ocean. *Indian J. Mar. Sci*., **28** : 198-210.

Lalithambika Devi, C.B., 1999. Larvae of Bothidae (Pleuronectiformes-Pisces), Illustrated Key. Published by National Institute of Oceanography, Goa, pp. 35.

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