

## Range extensions of four species of bothid flatfishes on the Pacific coast of America

Sergio Mussot Pérez and Albert M. van der Heiden

Instituto de Ciencias del Mar y Limnología, Estación Mazatlán, Universidad Nacional Autónoma de México (UNAM)

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Resumen: Se comunican nuevas extensiones de distribución para cuatro especies de lenguados (Bothidae) a lo largo de la costa del Pacífico Oriental. Se comunica la presencia de *Etropus peruvianus* y *Syacium latifrons* por primera vez en la costa pacífica de México.

Since 1979, extensive collecting of demersal fishes on the continental shelf off the coast of southern Sinaloa has been carried out at the Marine Station at Mazatlán, Sinaloa. From May 1982 onwards, sampling was extended to the entire Gulf of California. The geographical distribution of the flatfishes in the tropical eastern Pacific apparently is not well known and the present paper mentions important range extensions for four species of Bothidae. Most of the specimens reported here have been collected by otter trawl on board of the R/V "El Puma" of the Universidad Nacional Autónoma de México (SIPCO — and CORTES Projects).

Only two reports exist in the literature on the capture of *E. peruvianus*: Hildebrand (1946) who described the species, based on specimens from Perú and Panamá, and Nielsen (1963) who examined 22 specimens collected in the Gulf of Panamá. López and Bussing (1982) mentioned *E. peruvianus* in their checklist of the marine fishes of the Pacific coast of Costa Rica but did not collect the species. Thus the previous known distribution was limited to Perú and Panamá. This record represents an important extension (about 15° latitude) of its northern limit and is the first record for *E. peruvianus* in Mexico. The depth range for the species is between 18 and 78 m, with greatest abundance between 27 and 40 m.

### PLEURONECTIFORMES

#### BOTHIDAE

##### *Etropus peruvianus* Hildebrand, 1946

Specimens examined (54): off Punta Piaxtla, Sinaloa, depth 45 m, 2 specimens (16-I-1982); off Punta Piaxtla, Sinaloa, depth 40 m, 1 specimen (24-IV-1981); Bahía de Mazatlán, depth 27 m, 16 specimens (20-I-1981); off Mazatlán, depth 22 m, 10 specimens (19-III-1981); off Mazatlán, depth 27 m, 25 specimens (25-IV-1981).

##### *Syacium latifrons* (Jordan and Gilbert, 1882)

Specimens examined (37): off Punta Piaxtla, Sinaloa, depth 45 m, 20 specimens (16-I-1982); off Punta Piaxtla, Sinaloa, depth 76 m, 3 specimens (16-I-1982); off Bahía de Ceuta, Sinaloa, depth 55 m, 2 specimens (6-XII-1980); off Bahía San Ignacio, Sinaloa, depth 46 m, 1 specimen (30-IV-1980); off Bahía del Perihuate, Sinaloa, depth 64 m, 1 specimen (31-VIII-1979); off Islas Mariás, Nayarit, depth 76-94 m, 10 males (23-VII-1983).

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The presence of *Syacium latifrons* in the tropical eastern Pacific has been reported only

four times: Jordan and Gilbert (1882) described the species, based on specimens collected in the Bay of Panamá; Meek and Hildebrand (1928) described a male specimen collected in the market of Panamá; Price *et al.* (1980) reported the species from the Gulf of Nicoya, Costa Rica; and López and Bussing (1982) included the species in their check-list as being collected on the Pacific coast of Costa Rica. Thus *Syacium latifrons* has never been reported to occur outside Costa Rica and Panamá which is not surprising since *S. latifrons* resembles the better known *S. ovale* closely and has often been confused with it; Norman (1934) considered both species as synonymous and erroneously took the male of *S. latifrons* for the male of *S. ovale*. This record represents an important extension (about 13° latitude) of its northern limit and is the first record in México. The bathymetric range of the species is between 35 and 94 m.

*Hippoglossina bollmani* Gilbert, 1890

Specimens examined (5): off Cabo San Miguel, southwest of Isla Tiburón, Baja California Sur, Gulf of California, depth 66-110 m, 5 specimens (6-V-1982).

*H. bollmani* is poorly known and very few reports exist in the literature. Its geographical range has been reported as from Costa Rica to Perú by López and Bussing (1982) although Ramírez Hernández and Páez-Barrera (1965) collected the species off the coast of Guerrero, México. This record represents an extension of its northern limit of approximately 2,400 km. The species seems to prefer relatively deep water; the depth range is between 66 and 110 m.

*Citharichthys gordae* Beebe and Tee-Van, 1938

Specimens examined (15): off Punta Piaxtla, Sinaloa, depth 776 m, 14 specimens (16-I-1982); off Bahía de Ceuta, Sinaloa, depth 73 m, 1 specimen (28-IV-1980).

Apart from the original description of *Citharichthys gordae* by Beebe and Tee-Van (1983) based on specimens collected at Gorda Bank near Cape San Lucas, Lower California, no other report of the species exists in the literature. Although the distance in a straight

line between Cape San Lucas and southern Sinaloa is small, approximately 370 km, the mouth of the Gulf of California certainly acts as a barrier to the dispersal of marine fishes (Rosenblatt, 1967) and therefore the discovery of *C. gordae* on mainland Mexico results in an important range extension.

According to Walker (1960) many species of fish (mainly rocky shore forms, but also others from diverse types of habitats) which occur only in the Cape San Lucas area in the Gulf of California have their primary range extension on the mainland from Mazatlán southward. To find out whether *C. gordae* belongs to this group, samples from both coasts (lower California and the continental eastern Pacific) must be collected. The species seems to prefer relatively deep water; the depth range is between 73 and 146 m.

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