

COMMUNICATION

Desventuradas Islands, Chile: the easternmost outpost of the Indo-West Pacific zoogeographic region

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Resumen: Las Islas Desventuradas, Chile, se proponen como el límite oriental de peces en la llamada región zoogeográfica Indo-Pacífica. Esta propuesta se basa en evidencia tanto de especies descritas en la literatura como en otras ocho especies que se registran por vez primera en las islas.

Key words: Desventuradas Islands, Chile, zoogeography, Pacific.

As far as the distribution of fishes is concerned, the Southeastern Pacific Ocean is one of the less known areas of the world (Mead 1970). During the last twenty years, a series of studies have attempted to improve this situation, especially at oceanic islands such as Easter, Salas y Gómez and Juan Fernández Islands (e.g. Springer 1982, Parin 1985, 1990 and 1991, Sepúlveda and Pequeño 1985, Sepúlveda 1987, Kotlyar 1990, Paulin 1991).

In a relatively recent contribution, Parin (1991) indicated the possibility of an extension of the Indo-West Pacific zoogeographic region towards the east. We want to present our evidence related to the Desventuradas Islands (San Félix and San Ambrosio, Chile), in order to consider them as the easternmost outpost for the fishes of the Indo-West Pacific region.

The taxonomic determination of fishes is based on the literature and collection comparisons. The specimens collected and studied are listed in Table 1. Their distribution in other western Pacific islands are also mentioned. The purpose of this note is not a reply to Parin (1991) who maintains that the Nazca and Salas y Gómez submarine ridges are the easternmost outpost for Indo-West Pacific fishes. It is rather a substantiation of his statement to point out the possible distribution of Indo-West Pacific fishes even closer to the South American coast. We have an interesting collection of fishes

TABLE I

Fish species collected at Desventuradas Islands as their new easternmost record

Family and species	Catalog Nr. (IZUA)	Distribution
Muraenidae <i>Gymnothorax bathyphylus</i>	1672	Easter Island
Synodontidae <i>Synodus capricornis</i>	1669	Easter Island
Exocoetidae <i>Exocoetus volitans</i>	1448	Australia, Easter Island, South Pacific Ocean
Moridae <i>Physiculus luminosa</i>	1458	New Zealand
Serranidae <i>Trachypoma macracanthus</i>	1707	Lord Howe, Norfolk, Kermadec, New Zealand, Australia, Easter Island
Carangidae <i>Decapterus macarellus</i>	1462	Lord Howe, Norfolk, Kermadec, New Zealand, Australia
<i>Pseudocaranx dentex</i>	1685 1677	Australia, New Zealand, Oceanía, Easter Island, Juan Fernández
Blenniidae <i>Entomacrodus chapmani</i>	1478	Easter Island

from Desventuradas Islands, of which several are new records. This fact has changed our concepts and hence the motivation for the proposal of an extension of the Indo-West Pacific zoogeographic region. The importance of these fishes must be realized because until now, they have not been found in coastal South American

waters which are closer to Desventuradas than Easter Island or other South Pacific oceanic islands. Thus there is a good possibility that the oceanographic characteristics of the waters between Desventuradas and the Chilean coastline are a barrier to the passage of fishes between the two zones (Fig. 1). Although some

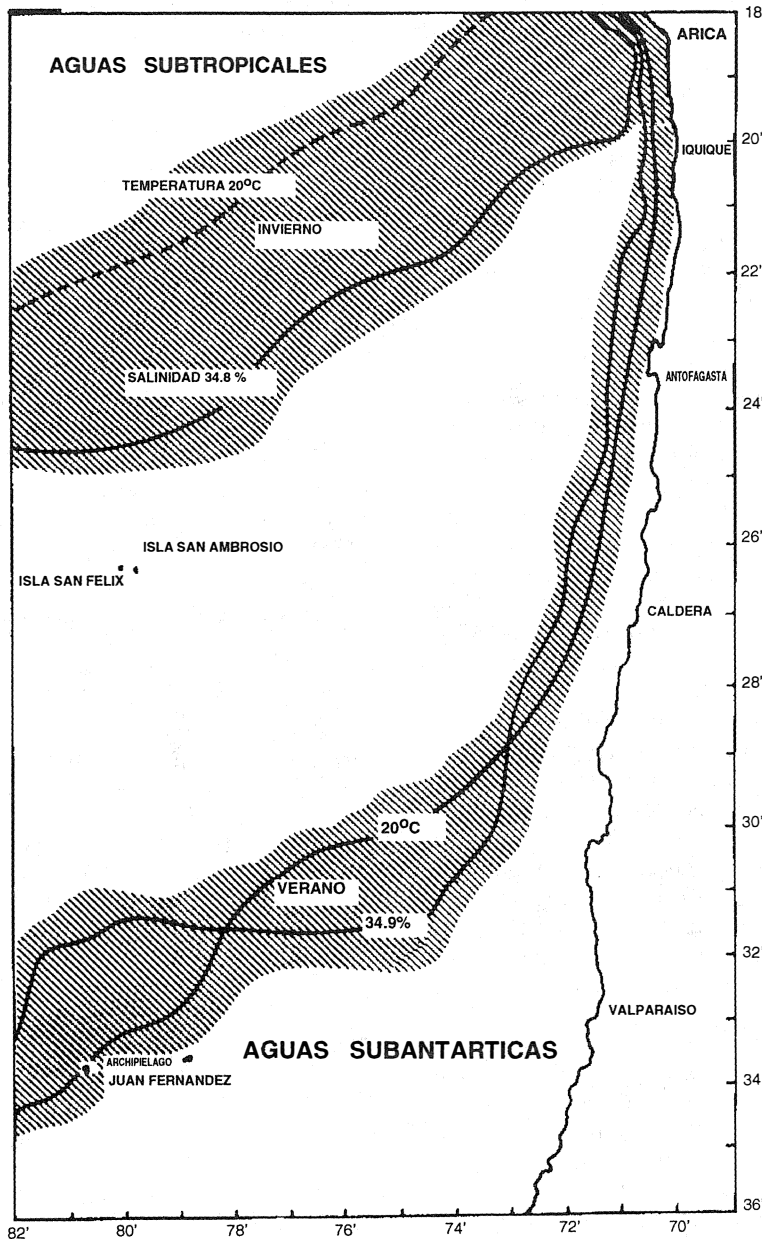


Fig. 1. Geographic allocation of Desventuradas Islands (San Félix and San Ambrosio), with surface salinity and temperature isoclines for Southern Hemisphere summer and winter (From Robles. *In*: Bahamonde 1987).

other species occurring in the Desventuradas Islands are also found along the coast off South America, *i.e.* *Polyprion oxygeneios* (Bloch and Schneider 1801) (Percichthyidae), *Caprodon longimanus* (Günther 1859) (Serranidae), *Cheilodactylus gayi* (Kner 1865) (Cheilodactylidae), *Gymnothorax porphyreus* (Guichenot 1848) (Muraenidae); they seem to be the exception, because an important portion of the ichthyofauna of Desventuradas is also common to Juan Fernández Islands, like *Muraenichthys chilensis* McCosker 1979, *Lotella fernandeziana* Rendahl 1921, *Monocentris reedi* Schultz 1956, *Girella felliciana* Clark 1938, *Umbrina reedi* (Günther 1880), *Chironemus bicornis* (Steindachner 1898) and *Pseudolabrus gayi* (Valenciennes 1839). Moreover, other species such as *Pseudocaranx dentex* (Valenciennes 1833), *Pterygotrigla picta* (Günther 1880) and *Exocoetus volitans* Linnaeus 1758, are widely distributed in Oceania. Thus, looking at the general taxonomic composition of the Desventuradas Islands, the similarity to Western Pacific islands is evidently much stronger than the weak similarity to the South American proper ichthyofauna.

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