

# RANGE EXTENSIONS FOR LOBSTERS OFF THE BRAZILIAN COAST (CRUSTACEA, DECAPODA, PALINURA, ASTACIDEA)

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## ABSTRACT

Range extensions for six species of lobsters off the Brazilian coast is reported here. These include four species of the infraorder Palinura (*Palinurellus gundlachi*, *Scyllarides brasiliensis*, *Scyllarus chacei* and *S. ramosae*), and two species of the infraorder Astacidea (*Nephropsis aculeata* and *N. rosea*).

**Keywords:** Brazilian coast, distribution, Palinuridae, Scyllaridae, Nephropidae.

## AMPLIAÇÃO DOS LIMITES DISTRIBUCIONAIS DE ESPÉCIES DE LAGOSTAS NA COSTA BRASILEIRA (CRUSTACEA, DECAPODA, PALINURA, ASTACIDEA)

## RESUMO

O presente trabalho registra a ampliação nos limites distribucionais de seis espécies de lagostas na costa brasileira, sendo quatro espécies da Infraordem Palinura (*Palinurellus gundlachi*, *Scyllarides brasiliensis*, *Scyllarus chacei* e *S. ramosae*) e duas espécies da Infraordem Astacidea (*Nephropsis aculeata* e *N. rosea*).

**Palavras-Chave:** Litoral brasileiro, distribuição, Palinuridae, Scyllaridae, Nephropidae.

## INTRODUCTION

Occurring in all the oceans, the lobsters are benthic crustaceans that take refuge in cavities in the rocks and in coral reefs. Present along of the almost 9,000 kilometers of the Brazilian coast, lobsters represent an important parcel of the marine fauna and an excellent fisheries resource. The increasing anthropic interventions in the marine environment and the continuous exploiting pressure come threatening the rich biodiversity of the Brazilian territorial sea, being the studies that contemplate the increase of the knowledge on the fauna primordial for the elaboration of management and protection programs that aim to reduce the impacts in this ecosystem.

The registers for the range extensions were obtained through the revision of the carcinological collections of the Museu de Zoologia da Universidade de São Paulo (MZUSP), Museu Nacional do Rio de Janeiro (MNRJ) and Museu Professor Melo Leitão (MML), whose the most part of the specimens were collected

under important projects (GEDIP, Ilha Grande, PADCT, REVIZEE, SOL and TAFF MD 55 “Marion Dufresne”) carried through the Brazilian coast.

According to DALL'OCCHO (2005), the lobster fauna of Brazilian littoral is represented, at this moment, by 25 species, distributed in 2 infraorders, 6 families and 13 genera, as follow:

- **Infraorder Palinura Latreille, 1802**
- **Superfamily Palinuroidea Latreille, 1802**
- **Family Palinuridae Latreille, 1802**  
*Justitia longimanus* (H. Milne Edwards, 1837)  
*Palinustus truncatus* A. Milne-Edwards, 1880  
*Panulirus argus* (Latreille, 1804)  
*Panulirus echinatus* Smith, 1869  
*Panulirus laeviscauda* (Latreille, 1817)
- **Family Synaxidae Bate, 1881**  
*Palinurellus gundlachi* von Martens, 1878
- **Family Scyllaridae Latreille, 1825**  
*Parribacus antarcticus* (Lund, 1793)  
*Scyllarides brasiliensis* Rathbun, 1906  
*Scyllarides deceptor* Holthuis, 1963  
*Scyllarides delfosi* Holthuis, 1960

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*Scyllarus americanus* (Smith, 1869)

*Scyllarus chacei* Holthuis, 1960

*Scyllarus depressus* (Smith, 1881)

*Scyllarus ramosae* Tavares, 1997

- **Superfamily Eryonoidea de Haan, 1841**
- **Family Polychelidae Wood-Mason, 1874**  
*Pentacheles laevis* Bate, 1878  
*Pentacheles validus* A. Milne-Edwards, 1880  
*Polycheles sculptus* Smith, 1880  
*Polycheles typhlops* Heller, 1862
- **Infraorder Astacidea Latreille, 1802**
- **Superfamily Enoplometopidea Saint Laurent, 1988**
- **Family Enoplometopidae Saint Laurent, 1988**  
*Hoplometopus antillensis* (Lütken, 1865)
- **Superfamily Nephropoidea Dana, 1852**
- **Family Nephropidae Dana, 1852**  
*Acanthacaris caeca* (A. Milne-Edwards, 1881)  
*Metanephrops rubellus* (Moreira, 1903)  
*Nephropsis aculeata* Smith, 1881  
*Nephropsis agassizii* A. Milne-Edwards, 1880  
*Nephropsis neglecta* Holthuis, 1974  
*Nephropsis rosea* Bate, 1888

## MATERIAL AND METHODS

The specimens were deposited in the carcinological collections of the Museu de Zoologia da Universidade de São Paulo (MZUSP), Museu Nacional do Rio de Janeiro (MNRJ) and Museu Professor Melo Leitão (MML). The classification was based on the work of MARTIN; DAVIS (2001). Previous knowledge of the distributions was based on the reports of HOLTHUIS (1991), TAVARES (1997), SILVA *et al.* (1998) CINTRA *et al.* (1999), MELO (1999), SILVA; CALADO (2000) and TAVARES; YOUNG (2002). The material examined provided the new records listed below for each species.

The abbreviations used are: m, meters; proj., project; st., station. Table 1 and figures 1 to 6 show the previously known distribution of each species (black circles) and the present distribution (black squares).

## RESULTS AND CONCLUSION

*Palinurellus gundlachi* von Martens, 1878

(Fig. 1)

**Previous distribution:** Western Atlantic: Bermuda, southern Florida, Bahama Is., Yucatán, Caribbean Arc (from Cuba to Barbados), Curaçao and Brazil (Atol das Rocas and from Paraíba to Alagoas).

**Material examined:** Espírito Santo - Ilha Escalvada, Guarapari, 20m, 1 female (MML 11).

*Scyllarides brasiliensis* Rathbun, 1906

(Fig. 2)

**Previous distribution:** Western Atlantic: Brazil (from Maranhão to São Paulo).

**Material examined:** Santa Catarina - Ilha do Arvoredo, Praia do Farol, 19.x.2003, 1 female (MZUSP 16260).

*Scyllarus chacei* Holthuis, 1960

(Fig. 3)

**Previous distribution:** Western Atlantic: North Carolina to Gulf of Mexico, Central America, Antilles, Venezuela, Surinam and Brazil (from Pará to Bahia and Rio de Janeiro).

**Material examined:** Espírito Santo - Proj. REVIZEE, st. D32, 18°52'S; 39°35'W, 22-52m, 28.ii.1996, 1 male and 1 juvenile (MNRJ 1591).

*Scyllarus ramosae* Tavares, 1997

(Fig. 4)

**Previous distribution:** Western Atlantic: Brazil (Espírito Santo).

**Material examined:** Bahia - REVIZEE Pesca - Bahia II, N/O "Thalassa", st. E-0511, 15°42'S; 38°37'W, 251m, 2 males and 2 ovigerous females (MNRJ 14935).

*Nephropsis aculeata* Smith, 1881

(Fig. 5)

**Previous distribution:** Western Atlantic: from New Jersey and Bermuda to French Guiana, including Gulf of Mexico and Caribbean Sea, Brazil (Pará and from Espírito Santo to São Paulo).

**Material examined:** Paraná - Proj. PADCT, st. 6633, 26°14'S; 45°44'W, 576m, 09.xii.1997, 1 female (MZUSP 12830); Santa Catarina - Proj. SOL, st. 1282, 25°58'S; 46°07'W, 268m, 07.xii.1970, 2 males and 5 females (MZUSP 11859); REVIZEE, st. 0412, São Francisco do Sul, 26°40'S; 46°34'W, 300m, 13.x.2001, 1 male (MZUSP 15186); "Nuevo Apenino", 24.xi.2001, 2 females (MZUSP 15701) and (MZUSP 15702).

*Nephropsis rosea* Bate, 1888

(Fig. 6)

**Previous distribution:** Western Atlantic: from Bermuda to French Guiana, including Bahama Is., Gulf of Mexico, Caribbean Sea and Brazil (Amapá, Bahia and Espírito Santo).

**Material examined:** Rio de Janeiro - Niterói, 700-800m, x.2004, 4 males and 2 females (MZUSP 16299); Cabo Frio, 730-800m, i.2004, 2 males (MZUSP 16128); TAAF MD 55 Brésil, st. 4 CP 07, 21°31'S; 40°07'W, 750-785m, 10.v.1987, 2 females (MZUSP 16116) and (MZUSP - 16114); st. 64 CP 105, 23°46'S; 42°10'W, 610m, 02.vi.1987, 1 female (MZUSP 16118) and 1 juvenile (MZUSP 16110); REVIZEE, st. 1256, Baía de Guanabara, 23°47'S; 42°09'W, 603m, 28.iv.2002, 1 male (MZUSP 15249); Proj. Ilha Grande, st. 1249, 24°02'S; 43°04'W, 600m, 26.iv.2002, 1 female (MZUSP 15253); São Paulo - REVIZEE, st. 1129, São Sebastião, 24°55'S; 44°33'W, 605-621m, 19.iv.2002, 2 males (MZUSP 15252); Santa Catarina - REVIZEE, st. 1001, 27°22'S; 47°01'W, 600m, 21.ii.2002, 1 male (MZUSP 15250).

In this work six species of lobsters have their limits in the Brazilian coast extended. The new occurrences are: *Palinurellus gundlachi* for Espírito Santo; *Scyllarides brasiliensis* for Santa Catarina; *Scyllarus chacei* for Espírito Santo; *S. ramosae* for Bahia;

*Nephropsis aculeata* for Paraná and Santa Catarina and *N. rosea* for Rio de Janeiro, São Paulo and Santa Catarina.

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Table 1 - Previously known distribution of each species and the new occurrences.

Species	Previous Distribution	New occurrences
<i>Palinurellus gundlachi</i>	Bermuda, southern Florida, Bahama Is., Yucatán, Caribbean Arc (from Cuba to Barbados), Curaçao and Brazil (Atol das Rocas and from Paraíba to Alagoas)	Espírito Santo
<i>Scyllarides brasiliensis</i>	Brazil (from Maranhão to São Paulo)	Santa Catarina
<i>Scyllarides chacei</i>	North Carolina to Gulf of Mexico, Central America, Antilles, Venezuela, Surinam and Brazil (from Pará to Bahia and Rio de Janeiro)	Espírito Santo
<i>Scyllarus ramosae</i>	Brazil (Espírito Santo)	Bahia
<i>Nephropsis aculeata</i>	from New Jersey and Bermuda to French Guiana, including Gulf of Mexico and Caribbean Sea, Brazil (Pará and from Espírito Santo to São Paulo)	Paraná and Santa Catarina
<i>Nephropsis rosea</i>	from Bermuda to French Guiana, including Bahama Is., Gulf of Mexico, Caribbean Sea and Brazil (Amapá, Bahia and Espírito Santo)	Rio de Janeiro, São Paulo and Santa Catarina

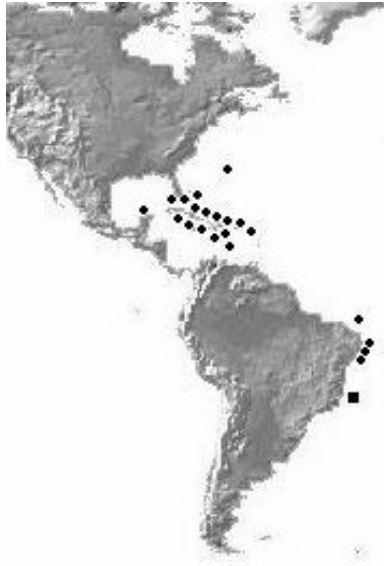


Figura 1. Distribution of *Palinurellus gundlachi*. The previously known distribution show by circles and the present distribution by squares.



Figura 2. Distribution of *Scyllarides brasiliensis*. The previously known distribution show by circles and the present distribution by squares.



Figura 3. Distribution of *Scyllarus chacei*. The previously known distribution show by circles and the present distribution by squares.



Figura 4. Distribution of *Scyllarus ramosae*. The previously known distribution show by circles and the present distribution by squares.



Figura 5. Distribution of *Nephropsis aculeata*. The previously known distribution show by circles and the present distribution by squares.

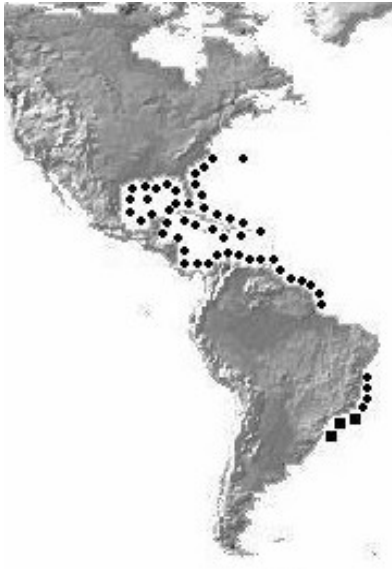


Figura 6. Distribution of *Nephropsis rosea*. The previously known distribution show by circles and the present distribution by squares.