

REPORT ON THE DEMERSAL FISHES SAMPLED BY ONBOARD OBSERVERS OFF SOUTHERN BRAZIL

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Collections made on five fishing vessel expeditions during 2001 and 2002 on the outer shelf and upper slope off southern Brazil revealed 92 species of fishes belonging to 63 families. One hundred forty-five trawl-fishing stations were performed between depths from 37 to 470 m, while just 8 trap-fishing stations were made from 507 to 850 m depth. A total of 855 specimens were sampled by onboard observers and subsequently deposited in the Museu Oceanográfico do Vale do Itajaí – MOVI. The samples collected made it possible to find four undescribed species belonging to the genera *Conger*, *Peristedion*, *Pachycara*, and *Schedophilus*. Reported for the first time in the studied area are such species as *Nezumia aequalis*, *Centriscops humerosos*, *Heteropriacanthus cruentatus*, and *Calamus penna*. An unusual deep-sea record of *Orthopristis ruber* is also reported at 721 m depth.

Noventa e duas espécies de peixes pertencentes a 63 famílias foram coletadas durante cinco expedições de pesca sobre a plataforma externa e o talude superior do sul do Brasil, em 2001 e 2002. Cento e quarenta e cinco estações de pesca de arrasto foram efetuadas entre 37 e 470 m de profundidade, enquanto que apenas 8 estações de pesca com armadilha foram feitas entre 507 e 850 m. Um total de 855 espécimes foram amostrados por observadores de bordo e posteriormente depositados no Museu Oceanográfico do Vale do Itajaí – MOVI. As amostras coletadas revelaram a ocorrência de quatro espécies novas pertencentes aos gêneros *Conger*, *Peristedion*, *Pachycara* e *Schedophilus*. *Nezumia aequalis*, *Centriscops humerosos*, *Heteropriacanthus cruentatus* e *Calamus penna* são registradas pela primeira vez na área de estudo. É também registrada a ocorrência incomum de *Orthopristis ruber* a 721 m de profundidade.

The marine fish fauna of the southern Brazil, especially the bottom and demersal fishes from the shelf break and continental slope, has scarcely been studied. Early Brazilian ichthyological surveys on this area were performed on the continental shelf to about 200 m depth (Vazzoler, 1975; Bengenú-Lé, 1978; Haimovici *et al.*, 1996), and on the shelf break to upper slope (Haimovici *et al.*, 1994). In addition, a few trawling stations in this area were conducted by research vessels from other nations, e.g. Parin & Andriyashev (1972), Roux (1973), Post (1987).

In order to improve the knowledge on the bottom fauna off southern Brazil, several groups of invertebrates

and fishes trawled and trapped in five commercial fishing cruises on the outer shelf and upper slope off Rio Grande do Sul state were sampled by onboard observers. The ichthyological results of these cruises are reported herein.

MATERIALS AND METHODS

Most of the material collected belongs to the fish group that is usually discharged during the fisheries (by-catch), and consequently is not landed on the harbors. The onboard observers who participated of this project have been volunteers or fellows of the Museu Oceanográfico do Vale do Itajaí (MOVI), and they were trained for sampling as much as possible the fauna collected by commercial fishing vessels.

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Samples were obtained from four trawl-fishing cruises: May and June 2001, FV *Saga de Thor* (ST), collector Marcelo V. Kitahara; February 2002, FV *Marília V* (MA), collector Marcelo V. Kitahara; May 2002, FV *Sambaqui III* (SQ), collector Carlos E. N. Consulim; and July and August 2002, FV *Saga de Viking* (SV), collector Marcelo B. Souza Filho. Only one trap-fishing cruise was made, February and March 2002, FV *Kinpo Maru 58* (KM), collector Carlos M. Lima e Silva. A total of 145 trawl-fishing stations were performed between depths from 37 to 470 m (Tables 1–4), while just 8 trap-

fishing stations were made from 507 to 850 m depth (Table 5). Fishing stations are shown in the Figure 1. All material collected, including the big specimens of sharks, were deposited in the MOVI.

The fishes collected live on or near the bottom, however some mesopelagic species were captured, and these also are included in this study. Fishes were identified in the laboratory according to the most recent references available for each group. Families are listed according to classification proposed by Eschmeyer (1998). Within families, genera and species are organized alphabetically.

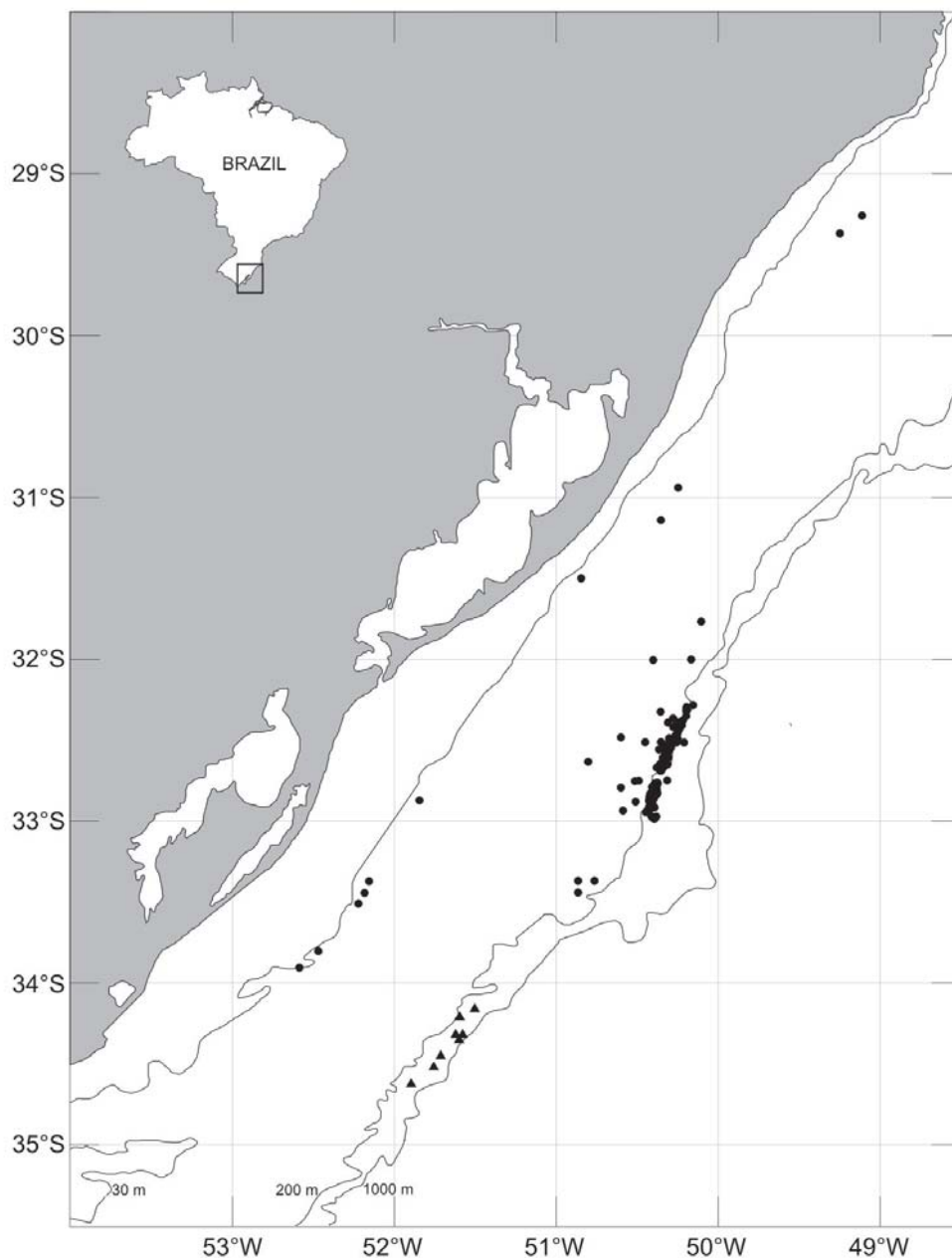


Figure 1. Trawl (circles) and trap (triangles) stations of five fishing cruises off southern Brazil (Tables 1–5).

Table 1. Trawl stations of the FV *Saga de Thor* off southern Brazil.

ST	Date	Initial coordinates	Final coordinates	Depth (m)	Time
#01	27.v.2001	32°19'S, 50°11'W	32°29.820'S, 50°16.753'W	349–400	04:45–09:30
#02	27.v.2001	32°29.820'S, 50°16.753'W	32°19.528'S, 50°11.481'W	330–370	10:00–15:00
#03	27.v.2001	32°20.012'S, 50°11.720'W	32°29.644'S, 50°16.897'W	300–350	16:00–20:30
#04	27.v.2001	32°26.644'S, 50°16.897'W	32°38.378'S, 50°21.078'W	280	21:10–01:10
#05	28.v.2001	32°38.222'S, 50°20.900'W	32°28.984'S, 50°16.627'W	300–340	02:15–07:00
#06	28.v.2001	32°30.474'S, 50°17.597'W	32°36.542'S, 50°20.300'W	293	08:45–12:00
#07	28.v.2001	32°36.986'S, 50°20.071'W	32°27.395'S, 50°15.523'W	350	13:00–18:00
#08	28.v.2001	32°27.395'S, 50°15.523'W	32°38.338'S, 50°20.847'W	340	18:30–23:00
#09	29.v.2001	32°39.451'S, 50°20.941'W	32°29.333'S, 50°16.367'W	380–400	00:30–05:00
#10	29.v.2001	32°30.141'S, 50°16.000'W	32°41.510'S, 50°21.550'W	380	06:00–10:45
#11	29.v.2001	32°41.308'S, 50°21.349'W	32°30.934'S, 50°17.182'W	400	12:00–16:30
#12	29.v.2001	32°31.191'S, 50°17.183'W	32°41.898'S, 50°21.833'W	370–400	17:30–22:00
#14	30.v.2001	32°31.191'S, 50°17.380'W	32°37.497'S, 50°20.156'W	370	05:00–08:00
#15	30.v.2001	32°36.313'S, 50°19.545'W	32°26.802'S, 50°14.949'W	370	09:00–13:50
#16	30.v.2001	32°27.198'S, 50°15.260'W	32°35.731'S, 50°19.804'W	300–360	14:00–18:00
#17	30.v.2001	32°33.793'S, 50°18.961'W	32°28.102'S, 50°15.622'W	300–400	19:00–23:00
#18	31.v.2001	32°40'S, 50°21'W	32°31'S, 50°17'W	300	05:30–10:00
#19	31.v.2001	32°31'S, 50°17'W	32°41.602'S, 50°21.999'W	300–340	11:00–15:35
#20	31.v.2001	32°39.652'S, 50°21.389'W	32°29.857'S, 50°17.050'W	300	18:00–22:10
#22	01.vi.2001	32°38'S, 50°20'W	32°26.890'S, 50°15.255'W	400	07:30–12:00
#23	01.vi.2001	32°23.167'S, 50°13.267'W	32°17.717'S, 50°11.064'W	350	13:00–16:15
#24	01.vi.2001	32°19.847'S, 50°11.609'W	32°27.406'S, 50°15.424'W	300	17:00–21:00
#29	02.vi.2001	32°33.910'S, 50°19.602'W	32°40.575'S, 50°22.145'W	300	11:30–15:15
#30	02.vi.2001	32°40.575'S, 50°22.145'W	32°30.830'S, 50°17.345'W	300	16:30–21:00
#32	03.vi.2001	32°30'S, 50°21'W	32°39.053'S, 50°16.631'W	300–400	06:00–10:20
#33	03.vi.2001	32°29.341'S, 50°16.470'W	32°34.277'S, 50°19.148'W	300	11:45–14:10
#34	03.vi.2001	32°36.878'S, 50°20.383'W	32°28.339'S, 50°15.692'W	150–300	15:30–19:00
#36	04.vi.2001	32°50'S, 50°24'W	32°39.999'S, 50°20.937'W	400	06:00–10:20
#37	04.vi.2001	32°40.981'S, 50°21.245'W	32°50.712'S, 50°24.887'W	400	11:30–16:00

Table 2. Trawl stations of the FV *Marília V* off southern Brazil.

MA	Date	Initial coordinates	Final coordinates	Depth (m)	Time
#01	07.ii.2002	29°15.957'S, 49°06.692'W	29°22.905'S, 49°12.249'W	53–54	15:30–19:00
#02	07.ii.2002	29°22.909'S, 49°12.249'W	29°32.618'S, 49°15.585'W	53–54	19:15–23:00
#03	08.ii.2002	30°58.582'S, 50°13.924'W	31°06.672'S, 50°20.549'W	80–81	12:00–16:00
#04	08.ii.2002	31°06.672'S, 50°20.549'W	31°13.607'S, 50°27.647'W	76–81	16:15–20:00
#05	09.ii.2002	31°32.325'S, 50°55.508'W	31°37.209'S, 50°58.766'W	40–41	07:00–10:30
#06	09.ii.2002	32°55.037'S, 51°51.775'W	33°02.984'S, 51°57.289'W	40–40	21:40–01:30
#07	10.ii.2002	33°18.944'S, 52°09.739'W	33°20.394'S, 52°10.560'W	40–40	09:15–10:00
#08	10.ii.2002	33°20.394'S, 52°10.560'W	33°23.663'S, 52°13.385'W	37–40	10:30–15:00
#09	10.ii.2002	33°23.663'S, 52°13.385'W	33°20.240'S, 52°11.488'W	37–40	15:30–19:30
#10	11.ii.2002	33°48.119'S, 52°28.786'W	33°54.884'S, 52°35.061'W	37–37	13:30–17:00
#11	11.ii.2002	33°54.884'S, 52°35.016'W	33°51.163'S, 52°28.435'W	37–42	17:00–20:30
#12	12.ii.2002	33°22.615'S, 50°54.150'W	33°26.828'S, 50°56.153'W	130–132	05:00–08:40
#13	12.ii.2002	33°26.248'S, 50°54.072'W	33°22.500'S, 50°47.493'W	134–138	09:00–12:30
#14	12.ii.2002	33°22.500'S, 50°47.493'W	33°15.736'S, 50°40.589'W	138–145	13:00–16:30
#15	14.ii.2002	32°36.764'S, 50°24.639'W	33°46.690'S, 50°27.785'W	145–148	11:00–16:00
#16	14.ii.2002	32°46.690'S, 50°27.785'W	32°37.353'S, 50°23.421'W	148–160	16:00–21:00
#17	15.ii.2002	32°34.501'S, 50°11.987'W	32°22.687'S, 50°15.682'W	157–160	11:00–15:30
#18	15.ii.2002	32°22.687'S, 50°15.682'W	32°34.170'S, 50°21.190'W	160–170	20:30–23:00
#19	16.ii.2002	32°20.763'S, 50°15.431'W	32°31.825'S, 50°21.338'W	154–155	13:30–19:30
#20	17.ii.2002	32°27.197'S, 50°15.514'W	32°34.357'S, 50°18.888'W	320–356	11:00–15:00
#21	17.ii.2002	32°34.357'S, 50°18.888'W	32°24.358'S, 50°16.367'W	300–356	16:00–20:45
#22	19.ii.2002	32°25.101'S, 50°17.972'W	32°33.558'S, 50°20.891'W	170	04:00–08:15

Table 3. Trawl stations of the FV *Sambaqui III* off southern Brazil.

SQ	Date	Initial coordinates	Final coordinates	Depth (m)	Time
#01	06.v.2002	32°18.089'S, 50°11.100'W	32°28.353'S, 50°15.945'W	360–360	08:30–13:00
#02	06.v.2002	32°29.164'S, 50°15.985'W	32°36.705'S, 50°19.127'W	350–420	14:00–17:20
#03	06.v.2002	32°38.271'S, 50°19.198'W	32°35.922'S, 50°19.821'W	320–420	18:30–19:40
#04	06.v.2002	32°35.534'S, 50°19.321'W	32°21.740'S, 50°12.505'W	360–400	22:10–04:00
#05	07.v.2002	32°22.952'S, 50°13.027'W	32°35.515'S, 50°19.200'W	380–380	05:30–11:30
#06	07.v.2002	32°37.295'S, 50°19.552'W	32°51.709'S, 50°23.985'W	450–450	12:15–17:30
#07	07.v.2002	32°54.468'S, 50°25.279'W	32°41.645'S, 50°21.429'W	410–450	21:00–03:00
#08	08.v.2002	32°41.280'S, 50°20.762'W	32°27.085'S, 50°12.249'W	400–400	05:00–10:00
#09	08.v.2002	32°26.391'S, 50°14.905'W	32°15.099'S, 50°09.915'W	360–380	10:50–16:30
#10	08.v.2002	32°17.476'S, 50°10.810'W	32°30.765'S, 50°17.184'W	360–360	17:30–23:00
#11	08.v.2002	32°30.743'S, 50°17.185'W	32°26.145'S, 50°14.769'W	360–380	23:50–06:00
#12	09.v.2002	32°27.265'S, 50°15.348'W	32°38.097'S, 50°20.283'W	380–380	07:00–11:00
#13	09.v.2002	32°39.836'S, 50°21.027'W	32°45.592'S, 50°23.506'W	360–380	12:00–14:50
#14	09.v.2002	32°47.215'S, 50°23.904'W	32°56.376'S, 50°25.317'W	400–400	16:30–20:30
#15	09.v.2002	32°55.954'S, 50°25.020'W	32°46.000'S, 50°23.844'W	350–420	23:00–03:15
#16	10.v.2002	32°47.500'S, 50°23.926'W	32°50.797'S, 50°24.845'W	370–400	04:00–10:00
#17	10.v.2002	32°50.039'S, 50°24.361'W	32°49.454'S, 50°24.295'W	380–400	11:00–16:00
#18	10.v.2002	32°49.123'S, 50°23.450'W	32°51.185'S, 50°24.879'W	360–380	17:40–22:30
#19	10.v.2002	32°52.823'S, 50°25.105'W	32°45.217'S, 50°22.323'W	400–450	23:20–05:30
#20	11.v.2002	32°46.021'S, 50°23.096'W	32°56.290'S, 50°25.754'W	420–420	06:30–11:15
#21	11.v.2002	32°55.718'S, 50°25.690'W	32°53.835'S, 50°25.452'W	380–400	15:00–21:00
#22	11.v.2002	32°55.127'S, 50°25.587'W	32°51.853'S, 50°24.935'W	370–380	22:00–23:30
#23	12.v.2002	32°51.945'S, 50°24.710'W	32°37.075'S, 50°20.067'W	360–390	00:00–06:00
#25	12.v.2002	32°34.720'S, 50°18.975'W	32°51.881'S, 50°25.117'W	360–380	13:15–20:00
#26	12.v.2002	32°51.519'S, 50°25.039'W	32°34.161'S, 50°18.756'W	370–380	21:00–04:00
#27	13.v.2002	32°34.867'S, 50°19.172'W	32°52.014'S, 50°25.181'W	360–380	05:00–12:00
#28	13.v.2002	32°53.120'S, 50°25.745'W	32°34.726'S, 50°19.049'W	360–400	13:00–19:15
#29	13.v.2002	32°34.464'S, 50°19.084'W	32°55.016'S, 50°25.638'W	370–380	20:00–03:45
#30	14.v.2002	32°54.996'S, 50°25.614'W	32°49.321'S, 50°24.565'W	360–380	04:15–07:00
#31	14.v.2002	32°47.742'S, 50°24.317'W	32°56.688'S, 50°19.647'W	380–380	07:25–11:00
#32	14.v.2002	32°39.942'S, 50°20.176'W	32°54.891'S, 50°25.590'W	370–400	12:00–19:00
#33	14.v.2002	32°55.028'S, 50°25.583'W	32°36.379'S, 50°19.704'W	360–380	20:00–02:30
#34	15.v.2002	32°36.593'S, 50°19.645'W	32°54.154'S, 50°25.510'W	400–420	03:25–11:00
#35	15.v.2002	32°54.774'S, 50°25.457'W	32°36.126'S, 50°19.560'W	380–380	11:40–18:00
#36	15.v.2002	32°36.115'S, 50°19.627'W	32°55.229'S, 50°25.647'W	380–400	19:00–03:00
#37	16.v.2002	32°54.386'S, 50°25.548'W	32°36.192'S, 50°19.599'W	380–380	04:30–11:00
#38	16.v.2002	32°34.390'S, 50°18.683'W	32°27.960'S, 50°15.831'W	360–360	11:45–14:15
#39	16.v.2002	32°28.330'S, 50°15.861'W	32°32.148'S, 50°17.817'W	360–360	15:00–21:00
#40	16.v.2002	32°32.135'S, 50°17.978'W	32°26.187'S, 50°14.658'W	360–380	21:50–05:00
#41	17.v.2002	32°26.278'S, 50°14.864'W	32°40.342'S, 50°21.403'W	350–360	06:00–12:00
#42	17.v.2002	32°39.519'S, 50°21.121'W	32°24.518'S, 50°13.986'W	350–360	12:30–19:00
#43	17.v.2002	32°24.546'S, 50°13.972'W	32°43.901'S, 50°22.762'W	360–360	20:00–03:00
#44	18.v.2002	32°44.968'S, 50°23.882'W	32°48.454'S, 50°24.375'W	370–380	04:00–11:00
#45	18.v.2002	32°46.581'S, 50°24.000'W	32°51.639'S, 50°25.100'W	360–360	12:30–19:00
#46	18.v.2002	32°52.065'S, 50°25.215'W	32°40.198'S, 50°21.212'W	360–380	19:45–03:00
#47	19.v.2002	32°41.006'S, 50°21.580'W	32°54.921'S, 50°25.660'W	370–380	03:40–10:00
#48	19.v.2002	32°54.302'S, 50°24.632'W	32°38.579'S, 50°20.163'W	420–420	10:40–17:00
#49	19.v.2002	32°37.696'S, 50°20.271'W	32°20.806'S, 50°12.065'W	380–400	18:00–01:00
#50	20.v.2002	32°22.572'S, 50°12.817'W	32°35.976'S, 50°19.567'W	380–380	01:45–08:15
#51	20.v.2002	32°38.878'S, 50°20.654'W	32°33.184'S, 50°18.306'W	360–400	10:00–16:00
#52	20.v.2002	32°31.888'S, 50°20.654'W	32°17.705'S, 50°10.611'W	360–380	16:30–23:00
#53	21.v.2002	32°00.449'S, 50°10.677'W	31°48.070'S, 50°08.641'W	160–160	06:00–12:00
#54	21.v.2002	31°47.648'S, 50°08.506'W	31°35.113'S, 50°08.175'W	140–150	12:30–18:00

Table 4. Trawl stations of the FV *Saga de Viking* off southern Brazil.

SV	Date	Initial coordinates	Final coordinates	Depth (m)	Time
#01	26.vii.2002	33°28.756'S, 50°36.414'W	33°37.118'S, 50°48.312'W	416–470	19:00–01:00
#03	27.vii.2002	33°47.626'S, 50°36.115'W	33°36.795'S, 50°49.912'W	360–394	11:00–16:00
#04	27.vii.2002	33°37.000'S, 50°49.877'W	33°28.447'S, 50°36.113'W	395–410	16:40–22:00
#05	29.vii.2002	32°58.758'S, 50°25.781'W	32°46.539'S, 50°23.572'W	383–388	03:30–08:30
#06	29.vii.2002	32°46.560'S, 50°23.532'W	32°59.735'S, 50°25.943'W	373–389	09:00–14:45
#07	29.vii.2002	32°59.230'S, 50°24.996'W	32°47.738'S, 50°23.878'W	370–392	15:15–21:00
#08	29.vii.2002	32°47.912'S, 50°25.013'W	33°00.429'S, 50°25.828'W	377–390	21:30–03:00
#09	31.vii.2002	32°53.536'S, 50°25.266'W	32°41.175'S, 50°21.394'W	370–387	09:30–14:30
#11	01.viii.2002	32°49.068'S, 50°23.439'W	32°36.593'S, 50°19.246'W	433–437	07:30–12:30
#12	02.viii.2002	32°35.992'S, 50°19.799'W	32°25.840'S, 50°14.637'W	330–353	09:00–13:30
#13	02.viii.2002	32°27.090'S, 50°15.380'W	32°38.875'S, 50°21.401'W	294–340	16:50–22:00
#15	03.viii.2002	32°58.918'S, 50°25.410'W	32°46.648'S, 50°24.011'W	350–375	08:00–14:00
#16	03.viii.2002	32°49.260'S, 50°24.314'W	32°58.874'S, 50°25.739'W	386–389	14:30–19:00
#18	04.viii.2002	32°47.688'S, 50°24.192'W	33°00.214'S, 50°25.485'W	366–386	06:45–12:30
#19	04.viii.2002	32°00.003'S, 50°25.281'W	32°47.190'S, 50°23.475'W	410–410	12:50–18:00
#20	04.viii.2002	32°46.577'S, 50°23.383'W	32°51.203'S, 50°24.002'W	405–406	19:00–21:20
#23	05.viii.2002	32°49.446'S, 50°25.230'W	32°57.903'S, 50°26.104'W	323–364	08:30–12:00
#25	05.viii.2002	32°52.928'S, 50°31.138'W	32°47.621'S, 50°30.609'W	120–122	15:15–17:30
#26	05.viii.2002	32°45.202'S, 50°30.784'W	32°33.082'S, 50°30.132'W	108–119	18:30–22:30
#32	07.viii.2002	32°56.262'S, 50°35.045'W	32°44.332'S, 50°39.946'W	82–90	15:45–20:30

Table 5. Trap stations of the FV *Kinpo Maru 58* off southern Brazil.

KM	Date	Coordinates	Depth (m)
#25	18.i.2002	34°37.43'S, 51°53.57'W	600
#85	11.ii.2002	34°31.43'S, 51°45.78'W	807
#89	12.ii.2002	34°27.62'S, 51°41.83'W	850
#124	01.iii.2002	34°13.28'S, 51°35.01'W	507
#131	03.iii.2002	34°19.70'S, 51°35.34'W	788
#135	26.iii.2002	34°19.01'S, 51°36.04'W	721
#136	06.iii.2002	34°19.48'S, 51°34.34'W	822
#148	09.iii.2002	34°09.31'S, 51°30.21'W	780

LIST OF SPECIES

MYXINIDAE

Eptatretus menezesi Mincarone, 2000

30 specimens, 480–900 mm TL: MOVI 17333, 1(900 mm) ST#08; MOVI 17334, 1(705 mm) ST#24; MOVI 17335, 1(816 mm) ST#37; MOVI 22676–22678, 3(480–760 mm) SQ#05; MOVI 22672–22675, 4(596–668 mm) SQ#08; MOVI 23041–23043, 3(685–860 mm) SQ#08; MOVI 24468–24470, 3(666–834 mm) SV#05; MOVI 24460–24467, 8(535–720 mm) SV#07; MOVI 24475, 1(660 mm) SV#09; MOVI 24476, 1(710 mm) SV#15; MOVI 24471–24472, 2(692–717 mm) SV#16; MOVI 24473–24474, 2(576–801 mm) SV#20.

Known off southeastern and southern Brazil, from Rio de Janeiro to Rio Grande do Sul states (Mincarone, 2000, 2003).

HEXANCHIDAE

Hepttranchias perlo (Bonnaterre, 1788)

4 specimens, 836–925 mm TL: MOVI 17267, 1(925 mm) ST#16; MOVI 23073, 1(881 mm) SQ#02; MOVI 23122, 1(836 mm) SQ#53; MOVI 24309, 1(868 mm) SV#09.

Widely distributed in tropical and temperate seas; in Brazilian waters it has been reported off northeast, southeast, and south regions, mainly at deep waters below 350 m (Soto, 2001).

LAMNIDAE

Lamna nasus (Bonnaterre, 1788)

1 specimen: MOVI 17274, 1 (TL undetermined) ST#15.

An epipelagic shark with centers of distribution in the North Atlantic and in a circumglobal band of temperate water of the South Hemisphere (Compagno, 2001). It is commonly caught off southern Brazil by longliners (Amorim *et al.*, 1998). Our specimen was probably trawled at mid-water while the net was being retrieved.

ALOPIIDAE

***Alopias superciliosus* (Lowe, 1841)**

1 specimen: MOVI 17447, 1(TL undetermined) ST#19.

Circumglobal in tropical and warm temperate seas. Found in coastal waters over the continental shelves and on the high seas in the epipelagic zone far from land; also caught near the bottom in deep water on the continental slopes (Compagno, 2001).

***Alopias vulpinus* (Bonnaterre, 1788)**

1 specimen: MOVI 17261, 1(2670 mm) ST#29.

Circumglobal in tropical to cold-temperate seas but most common in temperate waters and near land (Compagno, 2001).

SCYLORHINIDAE

***Scylorhinus haeckelii* (Miranda Ribeiro, 1907)**

120 specimens, 226–600 mm TL: MOVI 17389–17391, 3(462–541 mm) ST#01; MOVI 17393–17394, 2(470–512 mm) ST#02; MOVI 17399–17405, 7(381–600 mm) ST#04; MOVI 17406–17410, 5(320–583 mm) ST#05; MOVI 17411–17416, 6(310–396 mm) ST#19; MOVI 17432–17434, 3(226–279 mm) ST#24; MOVI 17276–17278, 3(413–486 mm) ST#30; MOVI 20279–20283, 5(465–529 mm) MA#12; MOVI 20289–20295, 7(413–510 mm) MA#13; MOVI 22720, 1(399 mm) SQ#01; MOVI 22729, 1(554 mm) SQ#07; MOVI 22757, 1(521 mm) SQ#10; MOVI 22793, 1(449 mm) SQ#12; MOVI 22747, 1(577 mm) SQ#14; MOVI 23045–23051, 7(502–600 mm) SQ#15; MOVI 23052–23054, 3(478–541 mm) SQ#16; MOVI 22748, 1(483 mm) SQ#18; MOVI 23055–23058, 4(501–545 mm) SQ#18; MOVI 22749, 1(417 mm) SQ#21; MOVI 23059–23061, 3(483–543 mm) SQ#21; MOVI 23063–23065, 3(336–557 mm) SQ#23; MOVI 23067–23069, 3(350–515 mm) SQ#25; MOVI 23079–23085, 7(360–555 mm) SQ#29; MOVI 23135–23137, 3(347–500 mm) SQ#47; MOVI 23100, 1(500 mm) SQ#50; MOVI 23124–23127, 4(442–579 mm) SQ#53; MOVI 23132–23134, 3(459–503 mm) SQ#54; MOVI 24456–24457, 2(459–472 mm) SV#05; MOVI 24438–24444, 7(290–495 mm) SV#06; MOVI

24428–24437, 10(350–555 mm) SV#07; MOVI 24445–24448, 4(356–516 mm) SV#09; MOVI 24449–24455, 7(408–569 mm) SV#15; MOVI 24458, 1(485 mm) SV#18.

Distributed in the western Atlantic, from Venezuela to Uruguay, on or near bottom at depths from 37 to 450 m (Compagno, 1984b, 2003; Soto, 2001).

TRIAKIDAE

***Galeorhinus galeus* (Linnaeus, 1758)**

2 specimens: MOVI 23036, 1(TL undetermined) SQ#23; MOVI 24310, 1(TL undetermined) SV#06.

Widely distributed in the Atlantic, Indo-Pacific, and eastern Pacific. In the western Atlantic, from south eastern Brazil (Rio de Janeiro) to Argentina (Soto, 2001; Gadig & Gomes, 2003a). Often occurs near the bottom at depths from 2 to 471 m (Compagno, 1984b).

***Mustelus schmitti* Springer, 1939**

1 specimen: MOVI 23123, 1(680 mm) SQ#53.

Distributed in the western South Atlantic, from southeastern Brazil (Rio de Janeiro) to northern Argentina (Compagno, 1984b; Soto, 2001).

SPHYRNIDAE

***Sphyrna zygaena* (Linnaeus, 1758)**

1 specimen: MOVI 23044, 1(TL undetermined) SQ#02.

Widespread in temperate and tropical seas, over continental and insular shelves. In the western Atlantic it ranges from Nova Scotia to Florida and the Virgin Islands, and from northeastern Brazil to southern Argentina (Compagno, 2003).

DALATIIDAE

***Etmopterus bigelowi* Shirai & Tachikawa, 1993**

179 specimens, 172–649 mm TL: MOVI 17395–17398, 4(369–467 mm) ST#04; MOVI 19664, 1(341 mm) ST#10; MOVI 17417–17431, 15(327–617 mm) ST#24; MOVI 17279–17281, 3(345–477 mm) ST#30; MOVI 20284–20287, 4(253–572 mm) MA#21; MOVI 22730, 1(249 mm) SQ#01; MOVI 22662, 1(436 mm) SQ#09; MOVI 22732–22736, 5(377–422 mm) SQ#09; MOVI 22770–22779, 10(174–370 mm) SQ#09; MOVI 22737–22745, 9(390–521) SQ#10; MOVI 22780–22792, 13(293–377 mm) SQ#10; MOVI 22746, 1(544 mm) SQ#12; MOVI 22762–22763, 2(229–262 mm) SQ# 12;

MOVI 22750–22752, 3(292–382 mm) SQ#25; MOVI 23074, 1(376 mm) SQ#28; MOVI 23086–23088, 3(432–545 mm) SQ#39; MOVI 23089–23093, 5(318–649 mm) SQ#40; MOVI 22753, 1(355 mm) SQ#41; MOVI 22764–22765, 2(223–278 mm) SQ#42; MOVI 23096–23099, 4(375–640 mm) SQ#48; MOVI 23101–23120, 20(263–611 mm) SQ#50; MOVI 23121, 1(446 mm) SQ#53; MOVI 24518–24526, 9(172–254 mm) SV#09; MOVI 24477–24478, 2(252–402 mm) SV#11; MOVI 24369–24427, 59(220–503 mm) SV#12.

Wide-ranging in the Atlantic, southwestern Indian, western Pacific, and eastern South Pacific. In the western Atlantic, known from Gulf of Mexico (Louisiana) to Argentina (Compagno, 2003).

***Etmopterus gracilispinis* Krefft, 1968**

3 specimens, 138–201 mm TL: MOVI 19663, 1(138 mm) ST#06; MOVI 22759, 1(201 mm) SQ#11; MOVI 24368, 1(195 mm) SV#12.

Distributed in the western Atlantic, USA (New Jersey to Florida), northern Gulf of Mexico and Suriname, and from southeastern Brazil (São Paulo) to Argentina. Also eastern Atlantic and southwestern Indian Ocean off South Africa (Soto, 2001; Compagno, 2003).

SQUALIDAE

***Squalus* sp. A**

45 specimens, 166–820 mm TL: MOVI 17392, 1(820 mm) ST#02; MOVI 20278, 1(478 mm) MA#12; MOVI 20532–20534, 3(166–171 mm) MA#12; MOVI 20288, 1(420 mm) MA#13; MOVI 20535–20564, 30(125–281 mm) MA#14; MOVI 22758, 1(TL undetermined) SQ#10; MOVI 22663, 1(641 mm) SQ#12; MOVI 23062, 1(575 mm) SQ#20; MOVI 22767–22768, 2(189–191 mm) SQ#53; MOVI 23128–23129, 2(441–450 mm) SQ#53; MOVI 23130–23131, 2(371–416 mm) SQ#54.

Distributed in the western Atlantic from northeast to south Brazilian coast. It is the same species complex cited by Soto (2001) as *Squalus* sp. (A).

***Squalus* sp. B**

51 specimens, 168–806 mm TL: MOVI 17388, 1(760 mm) ST#01; MOVI 17268, 1(592 mm) ST#16; MOVI 17275, 1(637 mm) ST#30; MOVI 22661, 1(497 m) SQ#09; MOVI 23066, 1(806 mm) SQ#23; MOVI 23070–23072, 3(643–805 mm) SQ#27; MOVI 23075–23077, 3 (375–771 mm) SQ#28; MOVI 23078, 1(678 mm) SQ#29; MOVI 23094, 1(795 mm) SQ#41; MOVI 23095, 1(736 mm) SQ#44; MOVI 23138–23139, 2(736–

766 mm) SQ#47; MOVI 24343–24344, 2(715–770 mm) SV#01; MOVI 24513–24517, 5(210–214 mm) SV#09; MOVI 24527–24536, 10(168–203 mm) SV#11; MOVI 24495–24512, 18(173–216 mm) SV#23.

Distributed in the western Atlantic, from northeastern to southern Brazil. It is the same species complex cited by Soto (2001) as *Squalus* sp. (B).

SQUATINIDAE

***Squatina argentina* (Marini, 1930)**

1 specimen: MOVI 17256, 1(976 mm) ST#04.

Distributed in the western South Atlantic, from southeastern Brazil (Rio de Janeiro) to Argentina (Compagno, 1984a; Soto, 2001).

***Squatina guggenheim* Marini, 1936**

1 specimen: MOVI 23018, 1(870 mm) SQ#54.

Distributed in the western South Atlantic, from southeastern Brazil (Rio de Janeiro) to northern Argentina (Soto, 2001; Gadig & Gomes, 2003b).

According to Soto (2001) it is a senior synonym of *Squatina occulta* Vooren & da Silva, 1992.

***Squatina punctata* Marini, 1936**

1 specimen: MOVI 24479, 1(210 mm) SV#32.

Distributed in the western South Atlantic from southeastern Brazil (Rio de Janeiro) to Argentina, on continental shelves (Soto, 2001; Gadig & Gomes, 2003b).

TORPEDINIDAE

***Torpedo puelcha* Lahille, 1926**

9 specimens, 125–923 mm DW: MOVI 17265, 1(238 mm) ST#30; MOVI 17264, 1(543 mm) ST#33; MOVI 22667, 1(177 mm) SQ#05; MOVI 22760, 1(125 mm) SQ#11; MOVI 23019, 1(448 mm) SQ#02; MOVI 23020, 1(419 mm) SQ#08; MOVI 23022, 1(450 mm) SQ#03; MOVI 24308, 1(656 mm) SV#15; MOVI 24313, 1(923 mm) SV#23.

Distributed in the western South Atlantic from southern Brazil (Santa Catarina) to northern Argentina, on outer shelves (rarely) and upper slopes (Menni & Stehmann, 2000).

RAJIDAE

***Atlantoraja castelnaui* (Miranda Ribeiro, 1907)**

4 specimens, 171–787 mm DW: MOVI 20272–

20274, 3(171–321 mm) MA#08; MOVI 23015, 1(787 mm) SQ#54.

Distributed in the western South Atlantic from southeastern Brazil to northern Argentina, on continental shelves (Menni & Stehmann, 2000).

***Atlantoraja cyclophora* (Regan, 1903)**

26 specimens, 190–597 mm DW: MOVI 17266, 1(465 mm) ST#30; MOVI 20515, 1(190 mm) MA#01; MOVI 23182–23183, 2(383–437 mm) SQ#53; MOVI 23149–23150, 2(376–404 mm) SQ#54; MOVI 24549–24550, 2(395–597 mm) SV#25; MOVI 24315–24332, 18(255–476 mm) SV#32.

Distributed in the western South Atlantic, from southeastern Brazil (Rio de Janeiro) to northern Argentina (Menni & Stehmann, 2000).

***Atlantoraja platana* (Günther, 1880)**

26 specimens, 271–587 mm DW: MOVI 17435, 1(587 mm) ST#04; MOVI 23184–23196, 13(316–520 mm) SQ#53; MOVI 23151–23160, 10(271–507 mm) SQ#54; MOVI 24333–24334, 2(360–529 mm) SV#32.

Distributed in the western South Atlantic from southeastern Brazil (Rio de Janeiro) to northern Argentina (Menni & Stehmann, 2000).

***Dactylobatus clarkii* (Bigelow & Schroeder, 1958)**

3 specimens, 360–450 mm DW: MOVI 22664, 1(450 mm) SQ#17; MOVI 22666, 1(448 mm) SQ#51; MOVI 24307, 1(360 mm) SV#11.

Previously known from east coast of Florida, Gulf of Mexico, Caribbean coasts of Central and South America, Suriname and the Lesser Antilles, on the slopes at depths from 366 to 915 m (McEachran & Carvalho, 2003). It is also reported by Soto *et al.* (2004) based on the material listed herein.

***Dipturus leptocauda* (Kreffft & Stehmann, 1975)**

56 specimens, 167–1222 mm DW: MOVI 17436, 1(432 mm) ST#16; MOVI 22721, 1(191 mm) SQ#01; MOVI 22794–22795, 2(187–213 mm) SQ#02; MOVI 22723–22728, 6(177–235 mm) SQ#06; MOVI 23161–23169, 9(281–569 mm) SQ#06; MOVI 23179, 1(602 mm) SQ#07; MOVI 22668–22669, 2(196–206 mm) SQ#07; MOVI 22670, 1(191 mm) SQ#10; MOVI 22761, 1(212 mm) SQ#11; MOVI 23180–23181, 2(485–534 mm) SQ#11; MOVI 22796–22797, 2(221–228 mm) SQ#12; MOVI 23144, 1(639 mm) SQ#14; MOVI 23143, 1(551 mm) SQ#16; MOVI 23011, 1(1042 mm) SQ#18; MOVI 23012, 1(1055 mm) SQ#19; MOVI 23146–

23148, 3(520–699 mm) SQ#19; MOVI 22665, 1(356 mm) SQ#35; MOVI 23145, 1(416 mm) SQ#40; MOVI 23178, 1(557 mm) SQ#44; MOVI 22671, 1(190 mm) SQ#48; MOVI 23013, 1(1222 mm) SQ#48; MOVI 23170–23177, 8(432–604 mm) SQ#48; MOVI 24335–24337, 3(167–241 mm) SV#03; MOVI 24339, 1(477 mm) SV#05; MOVI 24338, 1(353 mm) SV#09; MOVI 24340–24342, 3(429–460 mm) SV#11.

Previously known just from the holotype, taken off southern Brazil (24°21'S, 43°54'W, 500 m depth). Our material is composed of 56 specimens collected from 26 stations on the continental shelf and upper slope off Rio Grande do Sul state, ranging from 30°32'S to 33°48'S, at depths from 40 to 450 m.

***Psammobatis extenta* (Garman, 1913)**

19 specimens, 103–257 mm DW: MOVI 20516–20525, 10(103–155 mm) MA#01; MOVI 20526–20528, 3(163–172 mm) MA#01; MOVI 20299–20301, 3(181–216 mm) MA#07; MOVI 20270–20271, 2(208–255 mm) MA#08; MOVI 20296, 1(257 mm) MA#11.

Distributed in the western South Atlantic from southeastern Brazil (Rio de Janeiro) to northern Argentina (Menni & Stehmann, 2000).

***Rioraja agassizii* (Müller & Henle, 1841)**

2 specimens, 245–348 mm DW: MOVI 20268–20269, 2(245–348 mm) MA#08.

Distributed in the western South Atlantic, from southeastern Brazil (Espírito Santo) to Argentina (Menni & Stehmann, 2000).

DASYATIDAE

***Dasyatis centroura* (Mitchill, 1815)**

1 specimen: MOVI 23021, 1(630 mm) SQ#54.

Distributed in the western Atlantic, from Georges Bank and Cape Cod to southern Florida, northern and northeastern Gulf of Mexico, Bahamas, and coast of South America from southeastern Brazil to Argentina. Also known from eastern Atlantic and Mediterranean Sea (McEachran & Carvalho, 2003).

GYMNURIDAE

***Gymnura altavela* (Linnaeus, 1758)**

1 specimen: MOVI 23014, 1(975 mm) SQ#53.

Distributed in the western Atlantic, from Massachusetts to Argentina, but not throughout entire area. Also recorded in eastern Atlantic. A benthic species

in shallow water to 55 m (McEachran & Carvalho, 2003). The present capture (160 m) is the deepest known record of the species.

MURAENIDAE

***Gymnothorax conspersus* Poey, 1867**

3 specimens, 790–1037 mm TL: MOVI 17437, 1(1037 mm) ST#08; MOVI 17438, 1(790 mm) ST#22; MOVI 23202, 1(912 mm) SQ#41.

Distributed in the western Atlantic, from Florida Straits to southern Brazil (Böhlke & Smith, 2003).

CONGRIDAE

***Conger orbignianus* Valenciennes, 1842**

2 specimens, 695–984 mm SL: MOVI 22657, 1(984 mm) SQ#01; MOVI 24354, 1(695 mm) SV#18.

Distributed in the western South Atlantic, from southwestern Brazil (Rio de Janeiro) to northern Argentina (Figueiredo & Menezes, 1978).

***Conger* sp.**

3 specimens, 946–1523 mm SL: MOVI 17294, 1(930 mm) ST; MOVI 23028–23029, 2(1350–1490 mm) SQ#19.

A probable undescribed species from southern Brazil.

PHOSICHTHYIDAE

***Polymetme thaeocoryla* Parin & Borodulina, 1990**

3 specimens, 106–121 mm SL: MOVI 22638–22639, 2(106–107 mm) SQ#06; MOVI 22621, 1(121 mm) SQ#08.

Distributed in the western North Atlantic, from the Scotian Shelf almost to the equator (Craddock & Hartel, 2002) and in the western South Atlantic, off southern Brazil (Haimovici *et al.*, 1994) and Rio Grande Rise (Parin *et al.*, 1995). Also known from the eastern Atlantic from Ireland to the Gulf of Guinea (Craddock & Hartel, 2002).

IDIACANTHIDAE

***Idiacanthus atlanticus* Brauer, 1906**

1 specimen: MOVI 21021, 1(405 mm) KM#148.

Known from subtropical to temperate waters in the southern hemisphere (Gon, 1990). Recently recorded off southern Brazil (Figueiredo *et al.*, 2002).

SYNODONTIDAE

***Saurida brasiliensis* Norman, 1935**

1 specimen: MOVI 20514, 1(70 mm) MA#17.

Distributed in the western Atlantic, from North Carolina to northern Argentina. Also recorded off West Africa (Roux, 1973; Russell, 2003).

***Saurida caribbaea* Breder, 1927**

3 specimens, 73–78 mm SL: MOVI 20474–20476, 3(73–78 mm) MA#13.

Distributed in the western Atlantic, from Florida to Uruguay (Figueiredo *et al.*, 2002).

PARALEPIDIDAE

***Lestrolepis intermedia* (Poey, 1868)**

1 specimen: MOVI 17891, 1(182 mm) ST#11.

Known from warm waters of Atlantic, Indian and Pacific oceans (Nakabo, 2002). Recently recorded off southeastern and southern Brazil (Figueiredo *et al.*, 2002).

POLYMIXIIDAE

***Polymixia lowei* Günther, 1859**

7 specimens, 130–153 mm SL: MOVI 17894, 1(140 mm) ST#12; MOVI 17904–17906, 3(130–144 mm) ST#16; MOVI 20504, 1(147 mm) MA#22; MOVI 22603–22604, 2(135–153 mm) SQ#02.

Distributed in the western Atlantic, from New Jersey to Uruguay (Krefft, 1976; Figueiredo & Menezes, 1978).

BREGMACEROTIDAE

***Bregmaceros atlanticus* Goode & Bean, 1886**

2 specimens, 63–73 mm SL: MOVI 22613, 1(73 mm) SQ#06; MOVI 22620, 1(63 mm) SQ#08.

Circumtropical. In the western Atlantic, from New Jersey, and eastern Gulf of Mexico to Guianas (Robins & Ray, 1986), and off southern Brazil (Roux, 1973; Figueiredo & Menezes, 1978).

MACROURIDAE

***Coelorinchus marinii* Hubbs, 1934**

13 specimens, 210–290 mm SL: MOVI 17881, 1(254 mm) ST#03; MOVI 17899–17900, 2(240–256

mm) ST#16; MOVI 17902, 1(244 mm) ST#16; MOVI 20502–20503, 2(230–290 mm) MA#21; MOVI 22592, 1(268 mm) SQ#01; MOVI 22614, 1(220 mm) SQ#06; MOVI 22640, 1(263 mm) SQ#29; MOVI 22636, 1(254 mm) SQ#48; MOVI 24365–24366, 2(245–283 mm) SV#03; MOVI 21023, 1(210 mm) KM#124.

Distributed in the western South Atlantic, from southern Brazil to South Georgia (Roux, 1973; Cohen *et al.*, 1990).

***Malacocephalus occidentalis* Goode & Bean, 1885**

9 specimens, 255–440 mm SL: MOVI 17908, 1(440 mm) ST#36; MOVI 22648, 1(265 mm) SQ#06; MOVI 22629, 1(255 mm) SQ#20; MOVI 22650–22655, 6(272–350 mm) SQ#31.

Known from the tropical and warm-temperate waters of Atlantic. In the western Atlantic, from Cape Cod to Uruguay (Cohen *et al.*, 1990).

***Nezumia aequalis* (Günther, 1878)**

1 specimen: MOVI 21029, 1(266 mm) KM#136.

Widespread in North Atlantic and Mediterranean. In the western Atlantic, from Davis Straits to northern Brazil (Cohen *et al.*, 1990). First record off southern Brazil, at 34°19.48'S, 51°34.34'W, 822 m depth.

MORIDAE

***Gadella imberbis* (Vaillant, 1888)**

6 specimens, 168–246 mm SL: MOVI 20501, 1(234 mm) MA#21; MOVI 22595, 1(218 mm) SQ#02; MOVI 22609, 1(246 mm) SQ#04; MOVI 22624, 1(168 mm) SQ#09; MOVI 22637, 1(214 mm) SQ#11; MOVI 22590, 1(227 mm) SQ#27.

Rather widespread in tropical western Atlantic, from New York to northern Brazil, and also off southern Brazil. Also found in the eastern Atlantic, from Cape Verde Islands to about 11°S (Cohen *et al.*, 1990).

PHYCIIDAE

***Urophycis brasiliensis* (Kaup, 1858)**

1 specimen: MOVI 23207, 1(278 mm) SQ#54.

Distributed in the western South Atlantic, from southeastern Brazil to northern Argentina (Roux, 1973; Cohen *et al.*, 1990).

***Urophycis mystacea* Miranda Ribeiro, 1903**

2 specimens, 173–192 mm SL: MOVI 23205–

23206, 2(173–192 mm) SQ#54;

Distributed in the western South Atlantic, from southeastern Brazil to Argentina (Figueiredo *et al.*, 2002).

MERLUCCIIDAE

***Macruronus magellanicus* Lönnberg, 1907**

4 specimens, 354–667 mm SL: MOVI 22606, 1(354 mm) SQ#02; MOVI 23199, 1(608 mm) SQ#27; MOVI 24352, 1(590 mm) SV#06; MOVI 24353, 1(667 mm) SV#11.

Distributed off southern coast of South America. In the western South Atlantic from southern Brazil to Argentina, including Falkland Islands; and in the eastern South Pacific from Chile (Valparaíso) to Strait of Magellan and Beagle Channel (Lloris *et al.*, 2003).

***Merluccius hubbsi* Marini, 1933**

3 specimens, 114–248 mm SL: MOVI 17286, 1(248 mm) ST#16; MOVI 22593–22594, 2(114–157 mm) SQ#01.

Distributed in the western South Atlantic, from southeastern Brazil (Rio de Janeiro) to southern Argentina, including Falkland Islands (Lloris *et al.*, 2003).

OPHIDIIDAE

***Genypterus brasiliensis* Regan, 1903**

1 specimen: MOVI 17287, 1(360 mm) ST#18.

Distributed in the western South Atlantic, from southeastern Brazil (Rio de Janeiro) to northern Argentina (Figueiredo & Menezes, 1978; Inada, 1986a). Appears to be an unpatterned form of *Genypterus blacodes* (Forster, 1801); it has been recognized as a distinct species, but its status is unclear (Nielsen *et al.*, 1999).

BATRACHOIDIDAE

***Porichthys porosissimus* (Cuvier, 1829)**

13 specimens, 107–252 mm SL: MOVI 20440, 1(207 mm) MA#01; MOVI 20446–20451, 6(147–229 mm) MA#03; MOVI 20465–20466, 2(107–176 mm) MA#09; MOVI 23222–23225, 4(166–252 mm) SQ#53.

Distributed in the western South Atlantic, from southeastern Brazil (Espírito Santo) to Argentina (Gulf of San Matías) (Menezes & Figueiredo, 1998).

LOPHIIDAE

***Lophius gastrophysus* Miranda Ribeiro, 1915**

6 specimens, 210–656 mm SL: MOVI 17285, 1(255 mm) ST#16; MOVI 17439, 1(210 mm) ST#22; MOVI 17292–17293, 2(316–259 mm) ST; MOVI 22658, 1(420 mm) SQ#08; MOVI 23033, 1(656 mm) SQ.

Distributed in the western Atlantic, from North Carolina (Cape Hatteras) to northern Argentina (Caruso, 2003).

OGCOCEPHALIDAE

***Dibranchius atlanticus* Peters, 1876**

28 specimens, 60–147 mm SL: MOVI 17882, 1(107 mm) ST#03; MOVI 17887–17888, 2(114–147 mm) ST#08; MOVI 17889–17890, 2(96–134 mm) ST#10; MOVI 17892–17893, 2(99–113 mm) ST#11; MOVI 17911–17924, 14(80–124 mm) ST#36; MOVI 22600–22602, 3(100–115 mm) SQ#02; MOVI 22615–22616, 2(60–72 mm) SQ#06; MOVI 24357–24358, 2(128–130 mm) SV#05.

Distributed in the western Atlantic, from Canada to southeastern Brazil. Also known from eastern Atlantic, from the Gulf of Guinea to Angola (Bradbury, 1999; Figueiredo *et al.*, 2002). New south limit range, at 32°58.758'S, 50°25.781'W.

***Ogcocephalus vespertilio* (Linnaeus, 1758)**

5 specimens, 75–169 mm SL: MOVI 20445, 1(169 mm) MA#03; MOVI 23208, 1(149 mm) SQ#54; MOVI 24360–24362, 3(75–165 mm) SV#32.

Distributed in the western Atlantic, from northern Brazil to La Plata River (Bradbury, 1980).

BERYCIDAE

***Beryx splendens* Lowe, 1834**

1 specimen: MOVI 22589, 1(138 mm) SQ#25.

Known from deep waters throughout much of the temperate and tropical Atlantic, Pacific (off Chile), and Indian oceans (Moore, 2002a). In the western South Atlantic, off southeastern and southern Brazil (Figueiredo & Menezes, 1980; Haimovici *et al.*, 1994).

TRACHICHTHYIDAE

***Hoplostethus occidentalis* Woods, 1973**

6 specimens, 43–85 mm SL: MOVI 17895, 1(78 mm) ST#14; MOVI 22611–22612, 2(49–55 mm) SQ#05; MOVI 22627–22628, 2(43–44 mm) SQ#19; MOVI 22630, 1(85 mm) SQ#21.

Distributed in the western Atlantic, from the eastern coast of North America to southern Brazil (Moore, 2002b; Haimovici *et al.*, 1994).

ANOLOGASTERIDAE

***Anoplogaster cornuta* (Valenciennes, 1833)**

1 specimen: MOVI 21022, 1(80 mm) KM#89.

Worldwide distributed in temperate and warm waters. In the western South Atlantic, from southeastern Brazil to Argentina (Inada, 1986b; Figueiredo *et al.*, 2002).

ZEIDAE

***Zenopsis conchifera* (Lowe, 1852)**

8 specimens, 99–338 mm SL: MOVI 17282–17283, 2(247–338 mm) ST#16; MOVI 20470–20473, 4(99–110 mm) MA#13; MOVI 20479, 1(108 mm) MA#13; MOVI 22641, 1 (145 mm) SQ#29.

Distributed in the western Atlantic, from Canada (Nova Scotia) to Argentina. Also known from the eastern Atlantic and Indian Ocean (Figueiredo *et al.*, 2002; Heemstra, 2003a).

GRAMMICOLEPIDIDAE

***Xenolepidichthys dalgleishi* Gilchrist, 1922**

6 specimens, 53–83 mm SL: MOVI 17880, 1(80 mm) ST#02; MOVI 17896, 1(83 mm) ST#14; MOVI 22623, 1(73 mm) SQ#09; MOVI 22644–22645, 2(53–72 mm) SQ#06; MOVI 22642, 1(57 mm) SQ#31.

Distributed in the western Atlantic, from Canada (Nova Scotia) to southern Brazil. Also reported from eastern Atlantic, western Pacific, and Indian Ocean (Figueiredo *et al.*, 2002; Heemstra, 2003b).

CAPROIDAE

***Antigonia capros* (Lowe, 1843)**

1 specimen: MOVI 20469, 1(95 mm) MA#13.

Worldwide distributed in subtropical and tropical oceans except the eastern Pacific. In the western Atlantic, from the Gulf of Maine to northern Argentina (Menni *et al.*, 1984; Moore & Klein-MacPhee, 2002).

CENTRISCIDAE

***Centriscops humerosus* (Richardson, 1846)**

2 specimens, 142–168 mm SL: MOVI 24364,

1(142 mm) SV#03; MOVI 24359, 1(168 mm) SV#16.

Worldwide distributed in the temperate waters of the southern hemisphere. Previously known from the western South Atlantic off northern Argentina (Menni *et al.*, 1984; Duhamel, 1995). First record in Brazilian waters.

***Macrorhamphosus scolopax* (Linnaeus, 1758)**

1 specimen, 73–93 mm SL: MOVI 20498–20499, 2(73–93 mm) MA#17.

Worldwide distributed in tropical and subtropical waters. In the western Atlantic, from the Gulf of Maine to Argentina (Figueiredo *et al.*, 2002).

***Notopogon fernandezianus* (Delfin, 1899)**

10 specimens, 80–122 mm SL: MOVI 17876–17878, 3(89–122 mm) ST#01; MOVI 17879, 1(121 mm) ST#02; MOVI 17884, 1(89 mm) ST#04; MOVI 17885–17886, 2(108–118 mm) ST#08; MOVI 22618, 1(80 mm) SQ#07; MOVI 22619, 1(91 mm) SQ#08; MOVI 22622, 1(121 mm) SQ#09.

Distributed in the western Atlantic, from southeastern Brazil (Rio de Janeiro) to off La Plata River. Also known from the South Pacific (Figueiredo & Menezes, 1980; Duhamel, 1995).

SEBASTIDAE

***Helicolenus lahillei* Norman, 1937**

9 specimens, 128–253 mm SL: MOVI 17903, 1(128 mm) ST#16; MOVI 22591, 1(218 mm) SQ#01; MOVI 22596, 1(149 mm) SQ#02; MOVI 22610, 1(156 mm) SQ#05; MOVI 23204, 1(176 mm) SQ#54; MOVI 24355–24356, 2(235–253 mm) SV#01; MOVI 24480–24481, 2(145–160 mm) SV#03.

Distributed in the western South Atlantic, from southern Brazil (Rio Grande do Sul) to northern Argentina (off Mar del Plata) (Roux, 1973; Moura & Menezes, 2003). Considered by authors as subspecies of *Helicolenus dactylopterus* (Delaroche, 1809) (Eschmeyer, 1969; Roux, 1973; Inada, 1986c).

SCORPAENIDAE

***Pontinus corallinus* Miranda Ribeiro, 1903**

1 specimen: MOVI 23203, 1(155 mm) SQ#54.

Distributed in the western South Atlantic, off southeastern and southern Brazil, from Rio de Janeiro to Rio Grande do Sul (Roux, 1973; Moura & Menezes, 2003a).

TRIGLIDAE

***Prionotus nudigula* Ginsburg, 1950**

3 specimens, 148–174 mm SL: MOVI 23214–23216, 3(148–174 mm) SQ#53; MOVI 23209, 1(163 mm) SQ#54.

Distributed in the western South Atlantic, from southeastern Brazil (Rio de Janeiro) to Argentina (Figueiredo *et al.*, 2002).

***Prionotus punctatus* (Bloch, 1793)**

2 specimens, 133–152 mm SL: MOVI 20453, 1(133 mm) MA#05; MOVI 20468, 1(152 mm) MA#09.

Distributed in the western Atlantic, from the Gulf of Mexico (Campeche Bank) and Cuba south to Argentina (Richards & Miller, 2003).

PERISTEDIIDAE

***Peristedion* sp.**

1 specimen: MOVI 20497, 1(166 mm) MA#17.

A probable undescribed species from southern Brazil, also recently reported by Figueiredo *et al.* (2002).

PSYCHROLUTIDAE

***Cottunculus granulosus* Karrer, 1968**

4 specimens, 178–244 mm SL: MOVI 21031, 1(236 mm) KM#85; MOVI 21024, 1(244 mm) KM#89; MOVI 21025–21026, 2(178–212 mm) KM#136.

Distributed in the western South Atlantic, from the southeastern Brazil (Rio de Janeiro) to southern Argentina, including Falkland Islands and Burdwood Bank. Also known from southern Chile (Nelson & Nakamura, 1980; Lima & Mincarone, 2004).

ACROPOMATIDAE

***Synagrops bellus* (Goode & Bean, 1896)**

9 specimens, 107–257 mm SL: MOVI 17883, 1(107 mm) ST#03; MOVI 17901, 1(128 mm) ST#16; MOVI 22625–22626, 2(185–214 mm) SQ#09; MOVI 22643, 1(125 mm) SQ#06; MOVI 22646–22647, 2(208–222 mm) SQ#31; MOVI 23200, 1(257 mm) SQ#48; MOVI 24363, 1(150 mm) SV#09.

Distributed in the western Atlantic, from Canada to southern Brazil (Rio Grande do Sul). Also known from eastern Atlantic (Figueiredo *et al.*, 2002; Heemstra & Yamanoue, 2003).

***Synagrops spinosus* Schultz, 1940**

2 specimens, 88–102 mm SL: MOVI 22605, 1(88 mm) SQ#02; MOVI 22631, 1(102 mm) SQ#27.

Distributed in the western Atlantic, from North Carolina to Uruguay. Also known from the western Pacific (Figueiredo *et al.*, 2002; Heemstra & Yamanoue, 2003).

SERRANIDAE

***Bathyanthias roseus* Günther, 1880**

1 specimen: MOVI 20483, 1(125 mm) MA#16.

Distributed in the western South Atlantic, from northeastern Brazil (Pernambuco) to Uruguay (Moura & Menezes, 2003b).

***Dules auriga* Cuvier, 1829**

2 specimens, 74–126 mm SL: MOVI 20444, 1(74 mm) MA#03; MOVI 20467, 1(126 mm) MA#09.

Distributed in the western South Atlantic, from northeastern Brazil (Bahia) to northern Argentina (Moura & Menezes, 2003b).

PRIACANTHIDAE

***Heteropriacanthus cruentatus* (La Cepède, 1801)**

2 specimens, 166–181 mm SL: MOVI 23220–23221, 2(166–181 mm) SQ#53.

Circumglobal in tropical and subtropical waters. In the western Atlantic, from Rhode Island to southeastern Brazil (São Paulo) (Roux, 1973; Moura & Menezes, 2003c). First record off southern Brazil, at 32°00.449'S, 50°10.677'W – 31°48.070'S, 50°08.641'W, 160 m.

MALACANTHIDAE

***Lopholatilus villarii* Miranda Ribeiro, 1915**

2 specimens, 184–265 mm SL: MOVI 17288, 1(265 mm) ST#18; MOVI 20485, 1(184 mm) MA#16.

Distributed in the western South Atlantic, from northeastern Brazil to Argentina (Moura & Menezes, 2003d).

CARANGIDAE

***Trachurus lathami* Nichols, 1920**

9 specimens, 122–130 mm SL: MOVI 20508–20513, 6(123–130 mm) MA#17; MOVI 23211–23213,

3(122–128 mm) SQ#54.

Distributed in the western Atlantic, from the Gulf of Maine to northern Argentina (Figueiredo *et al.*, 2002)

HAEMULIDAE

***Orthopristis ruber* (Cuvier, 1830)**

1 specimen: MOVI 21030, 1(173 mm) KM#135.

Distributed in the western Atlantic, from the Caribbean Sea to southern Brazil. It has been reported on the continental shelf off southern Brazil from 10 to 210 m depth (Menezes & Figueiredo, 1980). The specimen reported herein was trapped at 721 m depth.

SPARIDAE

***Calamus penna* (Valenciennes, 1830)**

1 specimen: MOVI 20496, 1(166 mm) MA#17.

Distributed in the western Atlantic, from Florida to southeastern Brazil (São Paulo) (Roux, 1973; Carpenter, 2003). First record off southern Brazil, at 32°34.501'S, 50°11.987'W – 32°22.687'S, 50°15.682'W, 157–160 m.

SCIAENIDAE

***Umbrina canosai* Berg, 1895**

1 specimen: MOVI 23226, 1(196 mm) SQ#53.

Distributed in the western South Atlantic, from southeastern Brazil (Rio de Janeiro) to Argentina (Figueiredo *et al.*, 2002).

MULLIDAE

***Mullus argentinae* Hubbs & Marini, 1933**

6 specimens, 129–171 mm SL: MOVI 20441–20443, 3(153–168 mm) MA#03; MOVI 23217–23219, 3(129–171 mm) SQ#53.

Distributed in the western South Atlantic, from southeastern Brazil (Rio de Janeiro) to northern Argentina (Menezes & Figueiredo, 1985).

CHEILODACTYLIDAE

***Nemadactylus bergi* (Norman, 1937)**

1 specimen: MOVI 17289, 1(195 mm) ST#18.

Distributed in the western South Atlantic, from southeastern Brazil (Rio de Janeiro) to Argentina (Menezes & Figueiredo, 1985).

ZOARCIDAE

***Pachycara* sp.**

4 specimens, 199–282 mm SL: MOVI 21032–21033, 2(199–255 mm) KM#85; MOVI 21034–21035, 2(209–282 mm) KM#131.

An undescribed species from southern Brazil.

URANOSCOPIDAE

***Astroscopus sexspinosus* (Steindachner, 1876)**

1 specimen: MOVI 20298, 1(331 mm) MA#11.

Distributed in the western South Atlantic, from southeastern Brazil (Rio de Janeiro) to northern Argentina (Menni *et al.*, 1984; Menezes & Figueiredo, 1985).

PERCOPHIDAE

***Bembrops heterurus* (Miranda Ribeiro, 1903)**

16 specimens, 107–203 mm SL: MOVI 17909–17910, 2(120–144 mm) ST#37; MOVI 20480–20482, 3(117–191 mm), MA#15; MOVI 20486–20487, 2(164–176 mm) MA#16; MOVI 20488–20495, 7(133–175 mm) MA#17; MOVI 22617, 1(107 mm) SQ#06; MOVI 22649, 1(203 mm), SQ#31.

Distributed in the western South Atlantic, from southeastern Brazil (Rio de Janeiro) to Uruguay (Roux, 1973; Figueiredo *et al.*, 2002).

***Percophis brasiliensis* Quoy & Gaimard, 1825**

1 specimen: MOVI 20297, 1(543 mm) MA#11.

Distributed in the western South Atlantic, from southeastern Brazil (Rio de Janeiro) to central Argentina (Roux, 1973; Nakamura, 1986).

GEMPYLIDAE

***Ruvettus pretiosus* Cocco, 1833**

1 specimen: MOVI 23024, 1(575 mm) SQ#52.

Widely distributed in tropical and temperate waters of the world. In the western Atlantic, known from Canada (Grand Banks of Newfoundland) (Collette, 2002) to Argentina (Menni *et al.*, 1984).

***Thyrsitops lepidopoides* (Cuvier, 1832)**

6 specimens, 161–306 mm SL: MOVI 20500, 1(197 mm) MA#17; MOVI 20507, 1(161 mm) MA#17; MOVI 22597–22599, 3(238–287 mm) SQ#02; MOVI

22608, 1(306 mm) SQ#04.

Distributed in the western South Atlantic, from southeastern Brazil (Rio de Janeiro) to central Argentina. Also known off Chile (Nakamura & Parin, 1993).

TRICHIURIDAE

***Evoxymetopon taeniatus* Gill, 1863**

1 specimen: MOVI 24351, 1(1350 mm) SV#18.

Distributed in the western Atlantic, off Bermuda and Bahamas, the Caribbean Sea, and from southern Brazil to Uruguay. Also reported from the western North Pacific (Menni *et al.*, 1984; Nakamura & Parin, 1993).

***Lepidopus altifrons* Parin & Collette, 1993**

4 specimens, 396–487 mm SL: MOVI 22632–22635, 4(396–487 mm) SQ#27.

Distributed in the western Atlantic, from the Scotian Shelf to 35°S off Uruguay (Parin & Collette, 1993).

***Trichiurus lepturus* Linnaeus, 1758**

5 specimens, 302–365 mm TL: MOVI 20461, 1(302 mm) MA#08; MOVI 20462–20464, 3(314–344 mm) MA#09; MOVI 22607, 1(365 mm) SQ#02.

Widely distributed in tropical and temperate waters of the world. In the western Atlantic, from Cape Cod to northern Argentina (Parin & Nakamura, 2003).

CENTROLOPHIDAE

***Schedophilus* sp.**

1 specimen: MOVI 23201, 1(412 mm) SQ#11.

A probable undescribed species from southern Brazil.

ARIOMMATIDAE

***Ariomma bondi* Fowler, 1930**

1 specimen: MOVI 20484, 1(117 mm) MA#16.

Distributed in the western Atlantic, from Nova Scotia to Uruguay. Also reported in the eastern Atlantic from Senegal to Gabon (Haedrich, 2003).

PARALICHTHYIDAE

***Paralichthys isosceles* Jordan, 1891**

1 specimen: MOVI 23210, 1(197 mm) SQ#54.

Distributed in the western South Atlantic, from

southern Brazil (Paraná) to central Argentina (Figueiredo & Menezes, 2000).

MONACANTHIDAE

Aluterus monoceros (Linnaeus, 1758)

1 specimen: MOVI 17290, 1(443 mm) ST.

Distributed in tropical and temperate coastal waters (Matsuura, 2003). In the western Atlantic, from New England to northern Argentina (Menni *et al.*, 1984; Figueiredo & Menezes, 2000).

Stephanolepis hispidus (Linnaeus, 1766)

8 specimens, 114–147 mm SL: MOVI 20452, 1(144 mm) MA#05; MOVI 20455–20460, 6(114–147 mm) MA#08; MOVI 20454, 1(126 mm) MA#09.

Distributed in the western Atlantic, from Canada (Nova Scotia) to Uruguay (Figueiredo & Menezes, 2000).

TETRAODONTIDAE

Sphoeroides pachygaster (Müller & Troschel, 1848)

3 specimens, 118–272 mm SL: MOVI 17907, 1(155 mm) ST#19; MOVI 20478, 1(118 mm) MA#13; MOVI 23198, 1(272 mm) SQ#53.

Widely distributed in tropical and temperate coastal waters of the world. In the western Atlantic, from New Jersey to Argentina (Figueiredo *et al.*, 2002).

DIODONTIDAE

Chilomycterus spinosus (Linnaeus, 1758)

2 specimens, 95–150 mm SL: MOVI 20276–20277, 2(95–150 mm) MA#01.

Distributed in the western Atlantic, from Trinidad to Argentina (Leis, 2003; Figueiredo *et al.*, 2002).

DISCUSSION

A total of 92 species of fishes belonging to 63 families were collected off southern Brazil. Among the material collected are four undescribed species belonging to the genera *Conger*, *Peristedion*, *Pachycara*, and *Schedophilus*. Reported for the first time in that area are such species as *Nezumia aequalis*, *Centriscops humerosos*, *Heteropriacanthus cruentatus*, and *Calamus penna*. The occurrence of *Orthopristis ruber* at 721 m depth reveals a new deep-sea habitat, significantly different from those on the continental shelves where this species is very common.

The list of species reported does not exhaust the species diversity of the ichthyofauna associated with the bottom habitats on the outer shelf and upper slope off southern Brazil. The reason is that the fishing sites were restricted to the most convenient areas for trawling and trapping and the samples were composed from by-catch collected randomly.

The fauna and geographical distribution of demersal fishes of the western South Atlantic are still insufficiently studied. The participation of onboard observers on this kind of project is an important contribution to the knowledge of the fish diversity, especially on areas such as southern Brazil that have not been sufficiently explored by scientific expeditions using research vessels.

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