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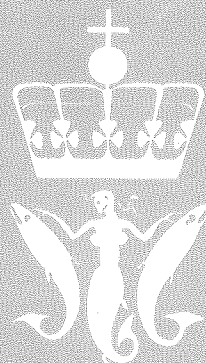
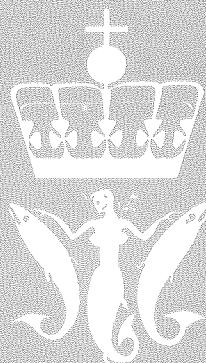
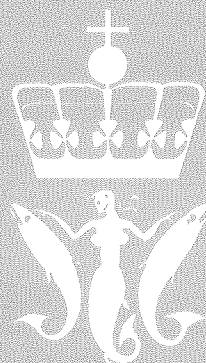
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LITTERATURSTUDIE

SKJELLRESSURSER I SYDISHAVET

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NORGES FISKERIHØYSKOLE, TROMSØ 1988

FISKERIDIREKTORATET



INNHOOLD.

| | |
|----------------------------------|-------|
| Abstrakt | s. 1 |
| <u>Chlamys tehuelchus</u> | 2 |
| <u>Chlamys patagonica</u> | 3 |
| <u>Adamussium colbecki</u> | 6 |
| Litteraturliste | 10 |
| Vedlegg | 11-19 |
| Tilleggs litteraturliste | |

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Abstrakt.

Dette litteraturstudiet er bestilt av Fiskeridirektoratet, etter anmodning fra Fiskebåtredrenes Forbund om utredning om emnet "Skjellressurser i Sydishavet".

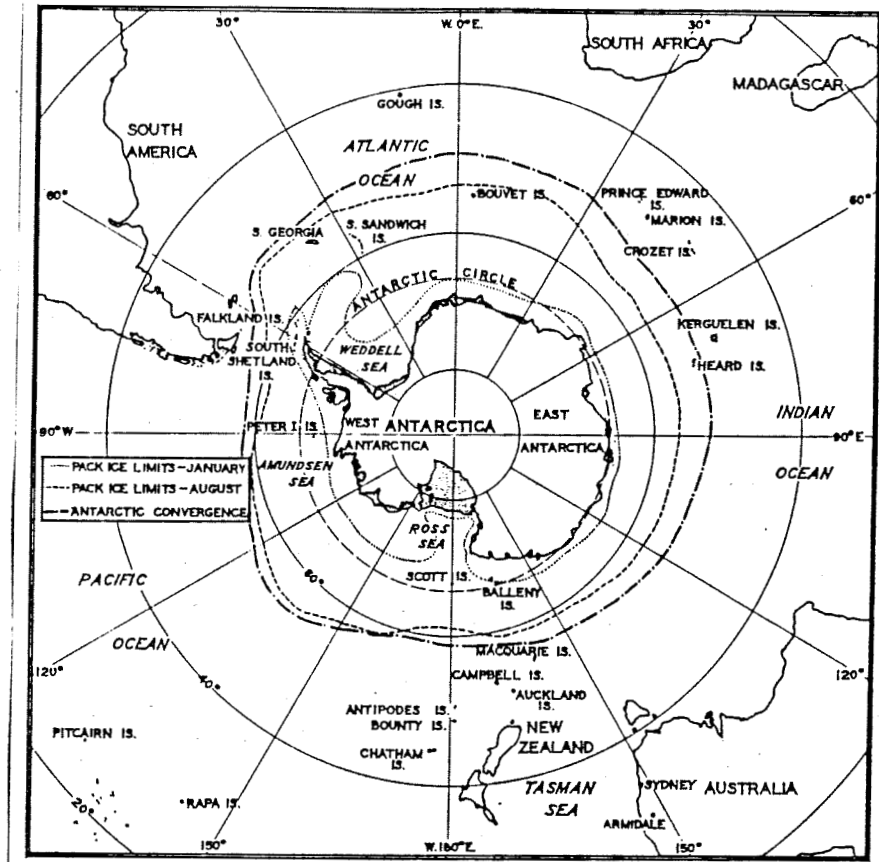


Fig.1. Antarktis i forhold til de omliggende kontinenter og øyer.

I studiet er det søkt etter ressurser av familie Pecttenidae. Dette er skjell som er i familie med haneskjell og kamskjell. Generelt skjell som går under betegnelsen scallops.

Det er framkommet data angående skjellressurser i Vestatlanteren, Argentina og Falklandsøyene, og Antarktis. Ingen litteratur er funnet angående skjellressurser på Afrikas kyst.

Det er i dette forstudiet/litteraturstudiet av skjellressurser i Sydishavet funnet 3 arter av skjell tilhørende familien Pectinidae som kan være av interesse. Disse er:

Chlamys patagonica - Argentina, Falklandsøyene

Chlamys tehuelchus - Argentina

Adamussium colbecki - Antarktis

Det er kun Chlamys tehuelchus som er kommersielt utnyttet på Atlanterhavssiden. Santos (1987) rapporterer at det finner sted et mindre fiske etter C. patagonica på sydspissen av Chile.

Chlamys tehuelchus.

De ti siste årene har det vært drevet skraping etter C. tehuelchus i områdene utenfor San Matias og San Jose' Gulfen. Fisket har hatt en stor økonomisk betydning i regionen. På verdensbasis har dette fisket svært liten betydning. Det utgjør ca. 0,4 % av verdens totale fangstmengde (Santos, 1987). Det rapporteres om overfiske i disse områdene (Ruzzante og Zaixso, 1985). Tabell 1. viser FAO statistikk for landinger av scallops fra Argentina.

| | 1981 | 1982 | 1983 | 1984 |
|-----------|------|------|------|------|
| Argentina | 5 | 27 | 1824 | 2151 |

Tab.1. Argentinske landinger av scallops 1981-1984. (Kilde; FAO, 1986).

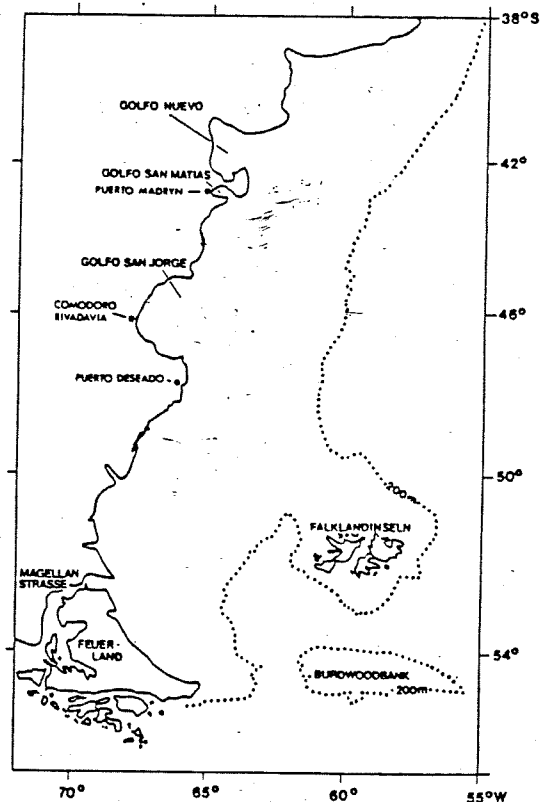


Fig.2. Kart over Argentina, Illandet og Falklandsøyene. (Kilde; Waloszek, 1986).

Det er utført forsøk med oppdrett av denne type scallop ved hjelp av japansk teknologi (Ruzzante og Zaixso, 1985).

Chlamys patagonica.

De følgende data angående C. patagonica er hentet fra D. Waloszek's rapport fra 3 forskningstokt over den argentinske kontinental sokkel med det vesttyske forskningsskipet "Walter Herwig" i 1978. Annen data er det henvist til på vanlig måte.

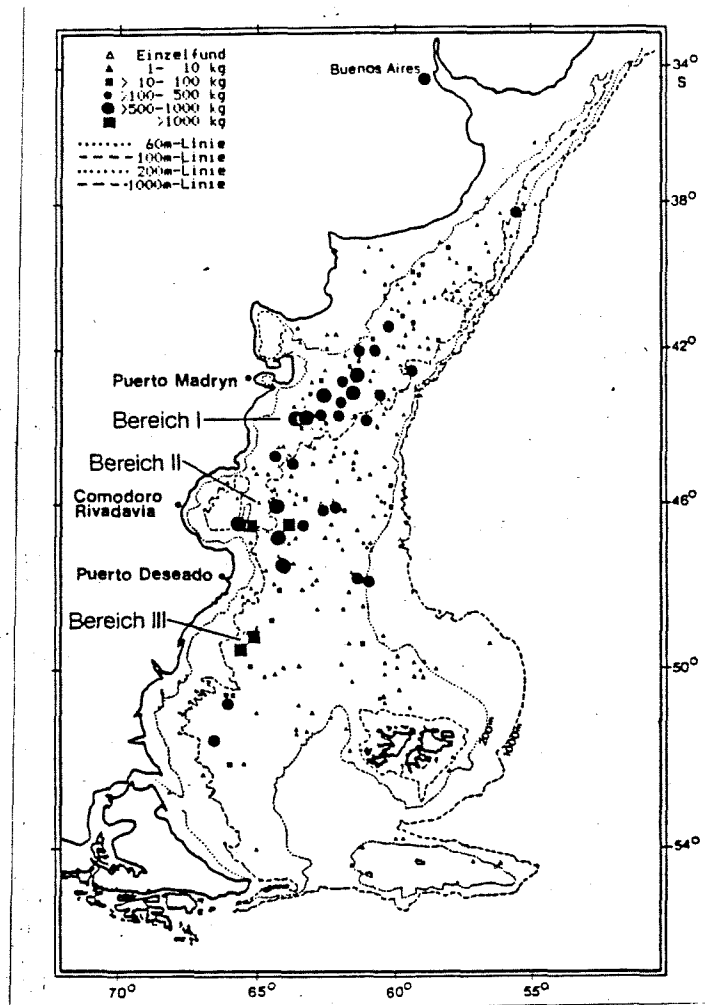


Fig.3. Fangstmengde av Chlamys patagonica foretatt med FRV "Walter Hervig" 1978. Bericht I-III angir områder med store konsentrasjoner. (Kilde; Waloszek, 1986).

C. patagonica er utbredt over hele den argentinske kontinentalhylle, hvor den er den mest dominerende mollusk. Den finnes i enkelte områder i store konsentrasjoner. Arten er dårlig kjent da det ikke drives kommersielt fiske på den i argentinsk farvann. Det drives

fiske etter denne arten i de sørlige chilenske farvannene rundt Ildlandet, det sydligste punkt på det søramerikanske kontinent (Santos, 1987).

Dybdepreferanse fra ca. 40 til 200 meter. Hovedbeltet er mellom 45 til 175 meter. Ca 90 % av forekomstene var å finne i dette beltet, kun 4 % av prøvene var å finne dypere enn 175 meter.

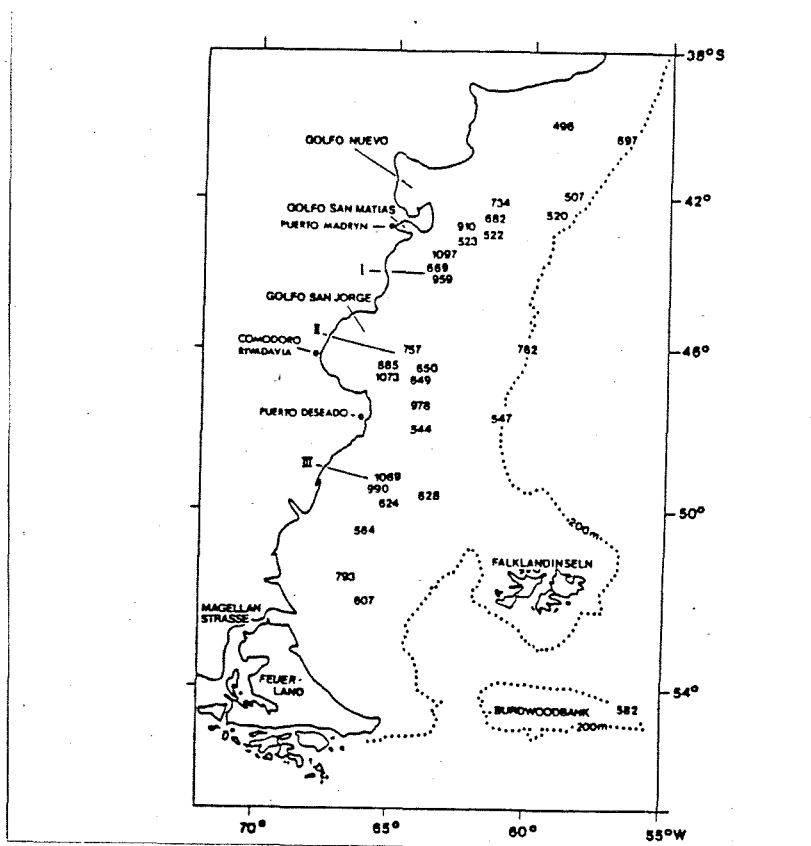


Fig.4. Posisjoner for de forskjellige fangststasjonene som ble foretatt av FRV "Walter Hervig" i 1978. De angitte tall korresponderer med utregningene i fig. 5. (Kilde; Waloszek, 1986).

Dens sydlige grense er gitt av 8°C isotermer. En isoterm som har sin beliggenhet mellom Falklandsøyene og Argentina. Den dannes av nedstrømmende varmt vann som har sitt opphav ved Vest Afrika og blandes med kaldt vann fra Antarktis. Det ble kun gjort sporadiske funn i området rundt Falklandsøyene og på Burdwoodbanken.

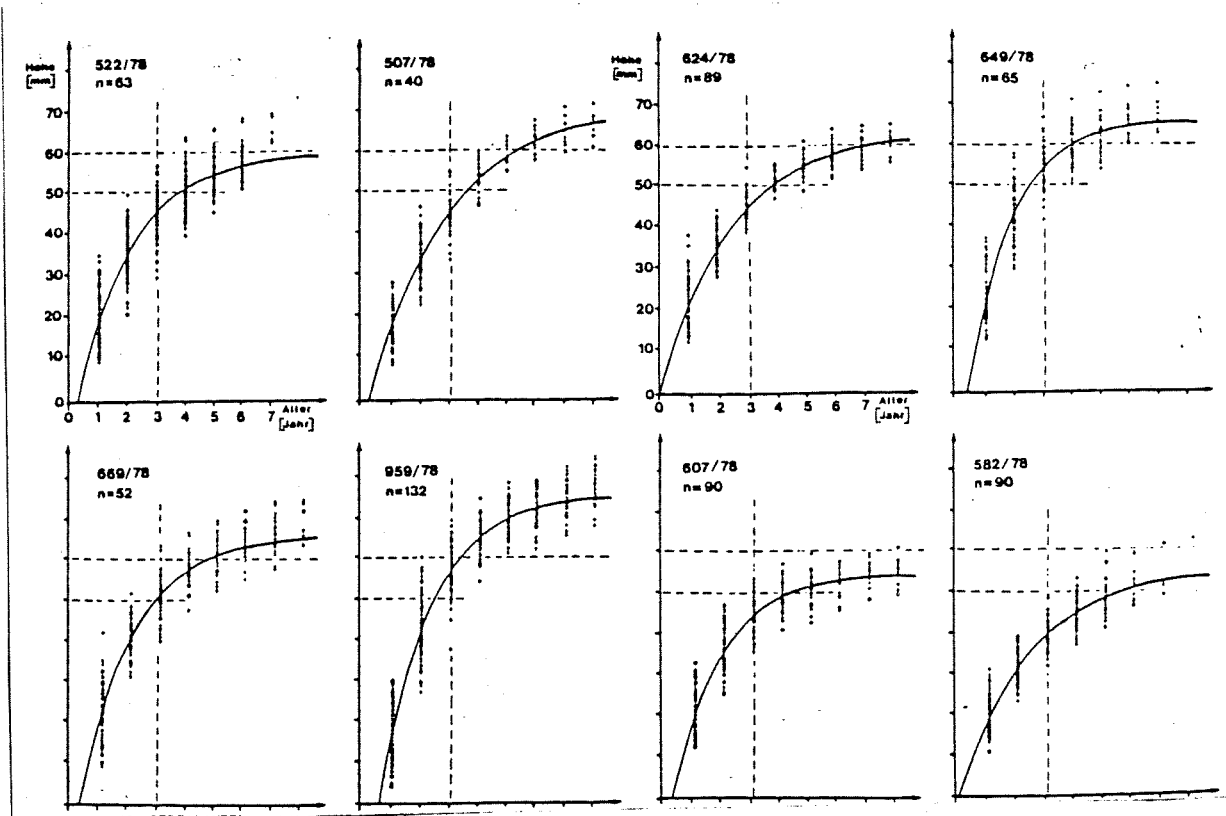


Fig. 5. Bertalanffy-vekstkurver fra utvalgte fangststasjoner av FRV "Walter Herwig" (1978). (Kilde: Waloszek, 1986).

Maksimum skallhøyde er ca 65 mm og nåes etter 7-8 år. Det er forholdsvis store variasjoner på skallhøyde, dette settes i sammenheng med områdene for funnene.

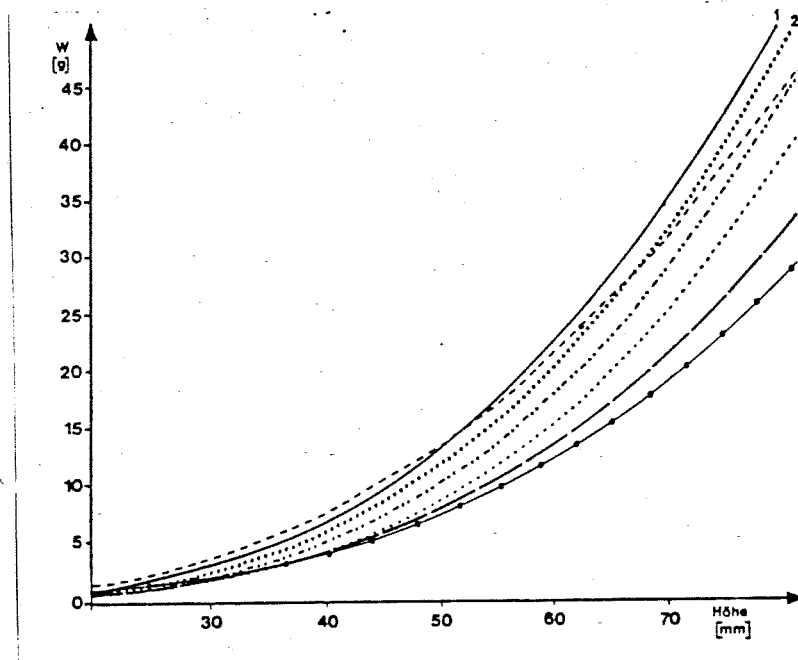


Fig. 6. Samla vekt som funksjon av skallhøyde. Korsponderende med fig. 5 tilhører kurve 1 prøve nr. 959, videre 2/669, 3/910, 4/607, 5/507, 6/522 og 7/547. (Kilde: Waloszek, 1986).

Adamussium colbecki.

A. colbecki finnes kun i Antarktis. Den har sin utbredelse rundt det Antarktiske kontinent (Stockton et al, 1984). Arten er å finne fra grunner på 4 meter ned til dybder på 700 meter (Mighen, 1965). Det er rapportert funn ned til dybder på 1335 meter (Russel og Yong, 1972).

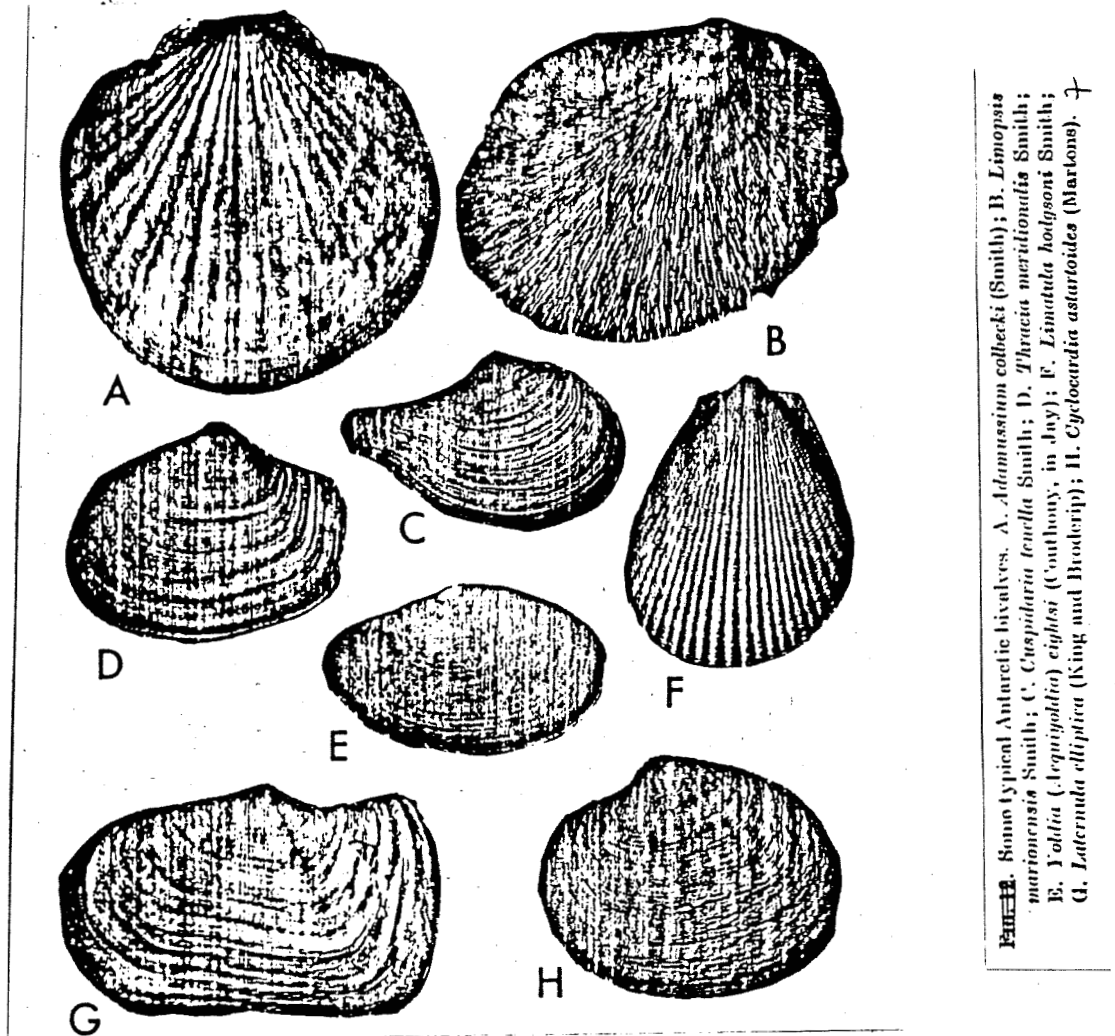


FIG. 7. Some typical Antarctic bivalves. A. *Adamussium colbecki* (Smith); B. *Limopsis marionensis* Smith; C. *Cuspidaria tenuella* Smith; D. *Phracia meridionalis* Smith; E. *Yoldia (Lequyoidia) eightsi* (Anthony, in Jay); F. *Limatula hodgsoni* Smith; G. *Laternula elliptica* (King and Broderip); H. *Cyclocardina asturtoidea* (Martens). 7

Fig.7. Noen typiske bivalver fra Antarktis.

A. colbecki eksisterer på ekstreme dybder. Den klarer seg også innenfor ekstreme temperaturforhold. Stockton (1984) fant 11-13 år gamle individer i Explorers cove, McMurdo sundet, (se vedlegg) et område hvor temperaturen vanligvis ligger på - 1,8 C. Dette er områder som er dekket av 2,5 meter is store deler av året.

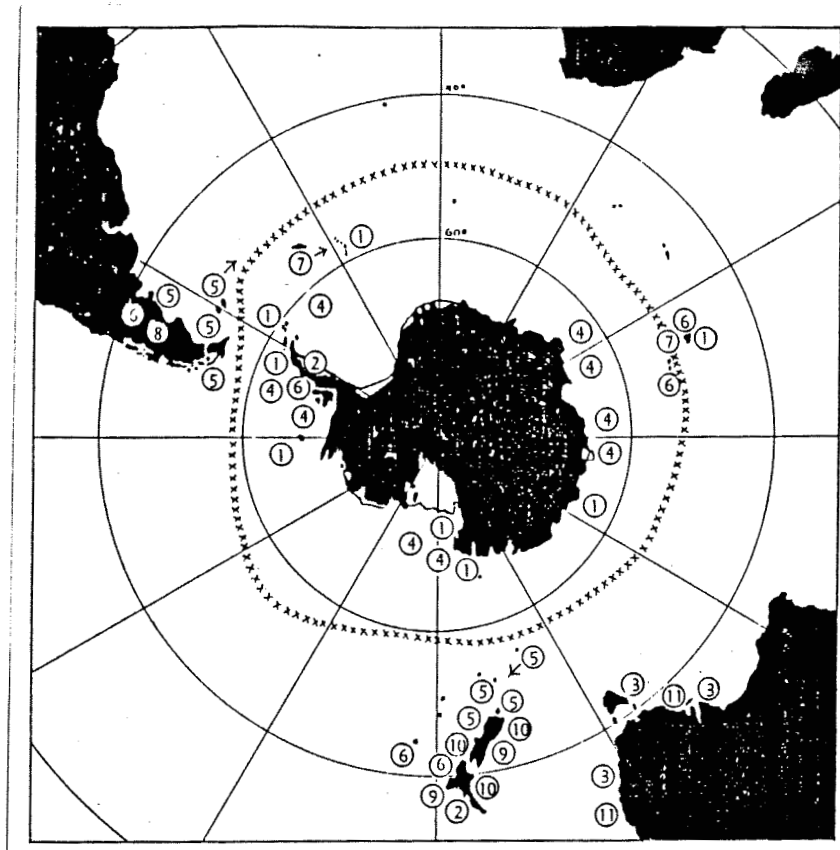


Fig.8. Utbredelse av den eldre antarktiske fauna som tilhører moluskene. 4 Adamussium colbecki. 5 Chlamys patagonica. (Kilde; Mieghem og Dye, 1965).

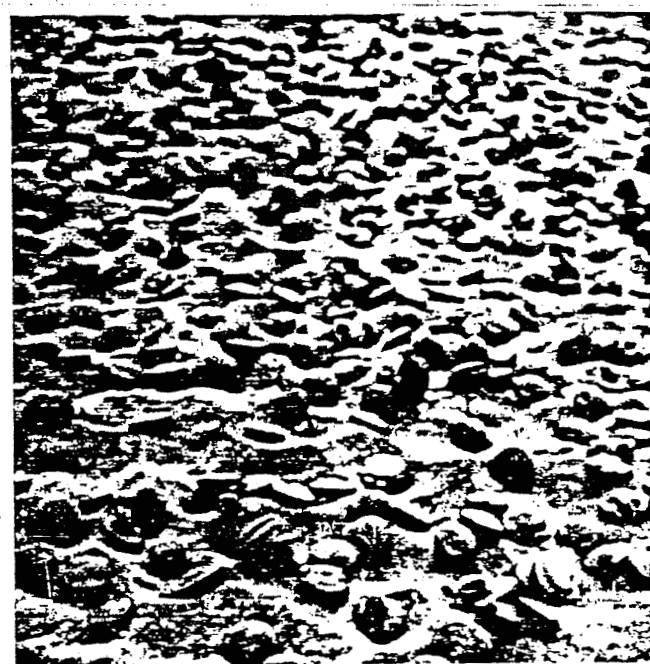


Fig. 9. Bildet viser stor tetthet av A. colbecki på 6 m dyp i Explorers Cove, McMurdo sundet, Antarktis. (Kilde; Stockton, 1984).

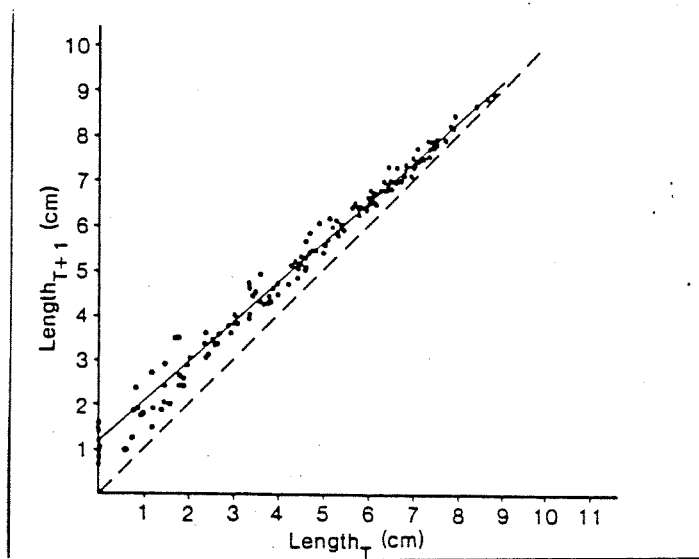


Fig.10. Adamussium colbecki.
Walford plott for vekst.
(Kilde: Stockton,1984)

Et Walford plott gir den en maksimum skallhøyde på 10,5 cm (Stockton,1984) (fig.10.). Videre ga et plott av skallhøyde mot skallfri våtvekt en maksimum vekt av bløtdeler på ca 50 g (Stockto,1984) (fig.11). Ingen deler av den litteraturen som er undersøkt gir noen indikasjon på muskelvekt i forhold til våtvekt. Det rapporteres av Ralph og Maxwell at dens indre anatomi er svært lik Chlamys. Dette tilsier at ca. 50 % av de totale bløtdeler er muskel.

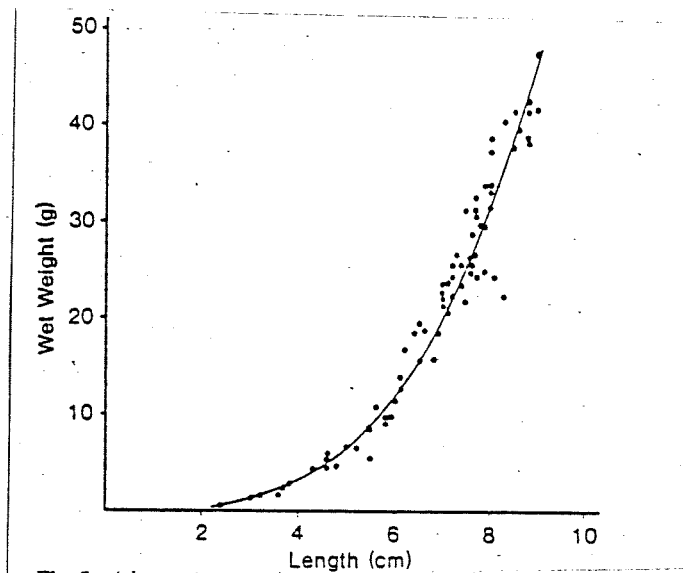


Fig.11. Adamussium colbecki.
Skallhøyde plottet mot skall-
fri våtvekt.
(Kilde: Stockton,1984).

Den stiller ikke spesielle krav til sedimenttype. Det er blitt hentet prøver fra områder bestående av pukk, stein og sand. Som sine fjerne slektninger i andre havområder er den mobil. Den blir omtalt som svært mobil. Skallet karakteriseres som tynt (Ralph og Maxwell,1977).

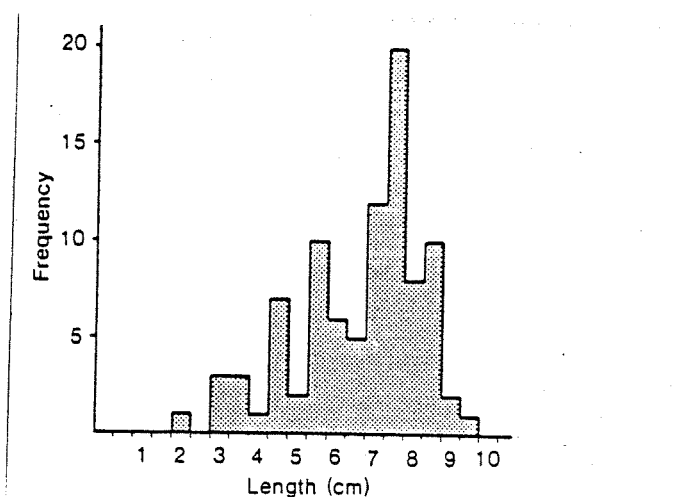


Fig 12. A. colbecki. Størrelse-frekvens histogram fra Explorers Cove, McMurdo sundet, Antarktis. (Kilde: Stockton, 1984).

Størst tetthet finnes på grunnere vann. Ut fra den gjennomgatte litteratur er det ikke mulig og si noe konkret om tettheten korresponderer med dybden, temperatur eller sedimenttyper. Dette må også sees i sammenheng med de enorme havområder som omgir Antarktis og den forskning som er foretatt i området. Med hensyn på forekomster av A. colbecki vil jeg referere Ralrh og Maxwell (1977); "...A. colbecki, er svært vanlig og har vid utbredelse rundt det antarktiske kontinent..."

Det rapporteres at A. colbeki kan være begrodd og at dette settes i sammenheng med skallhøyde (=alder) (Mullineaux og DeLaca).

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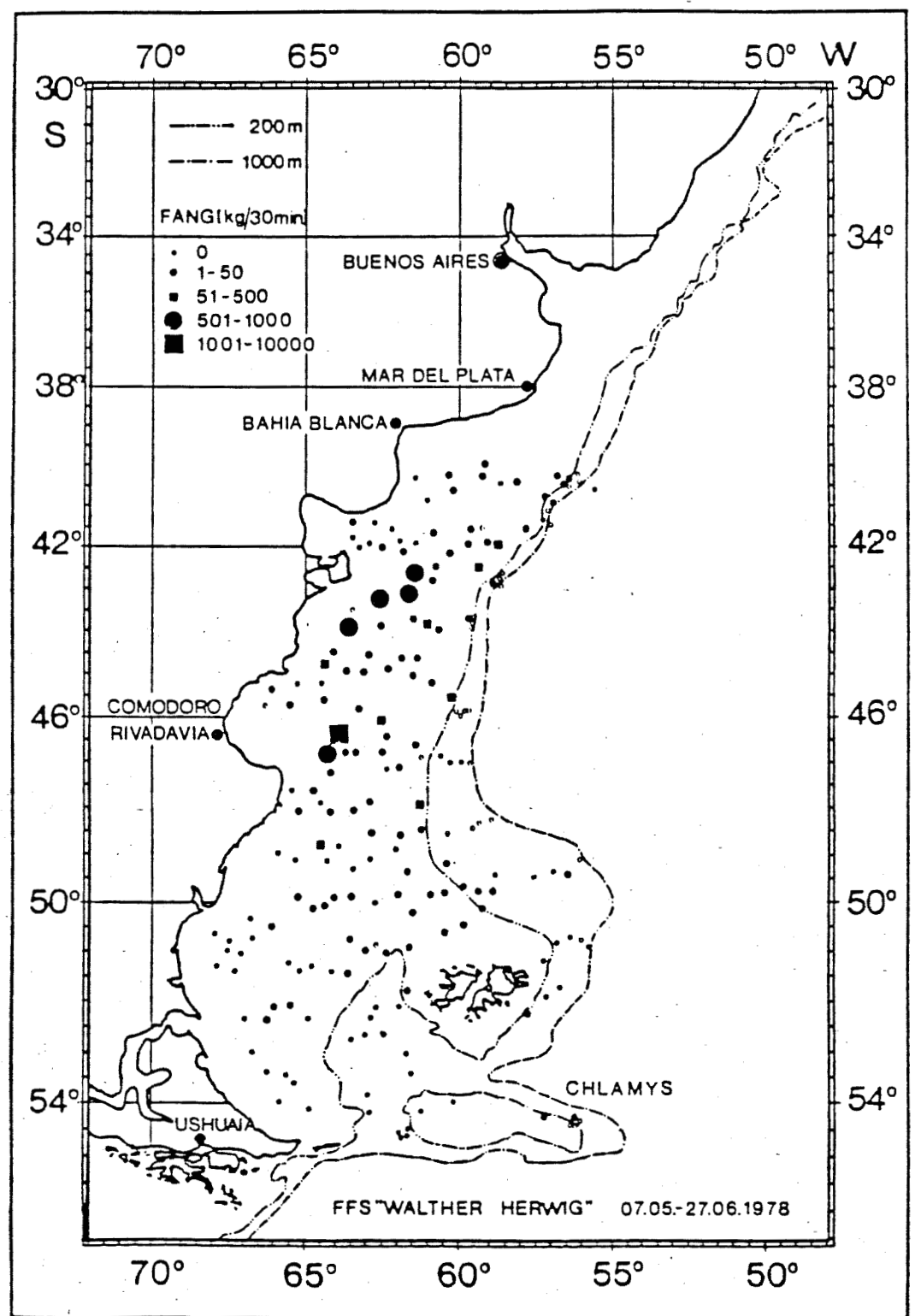


Abb. 37: *Chlamys patagonica* (Pilgermuschel)

Vorkommen und Fangmengen im Suedherbst 1978

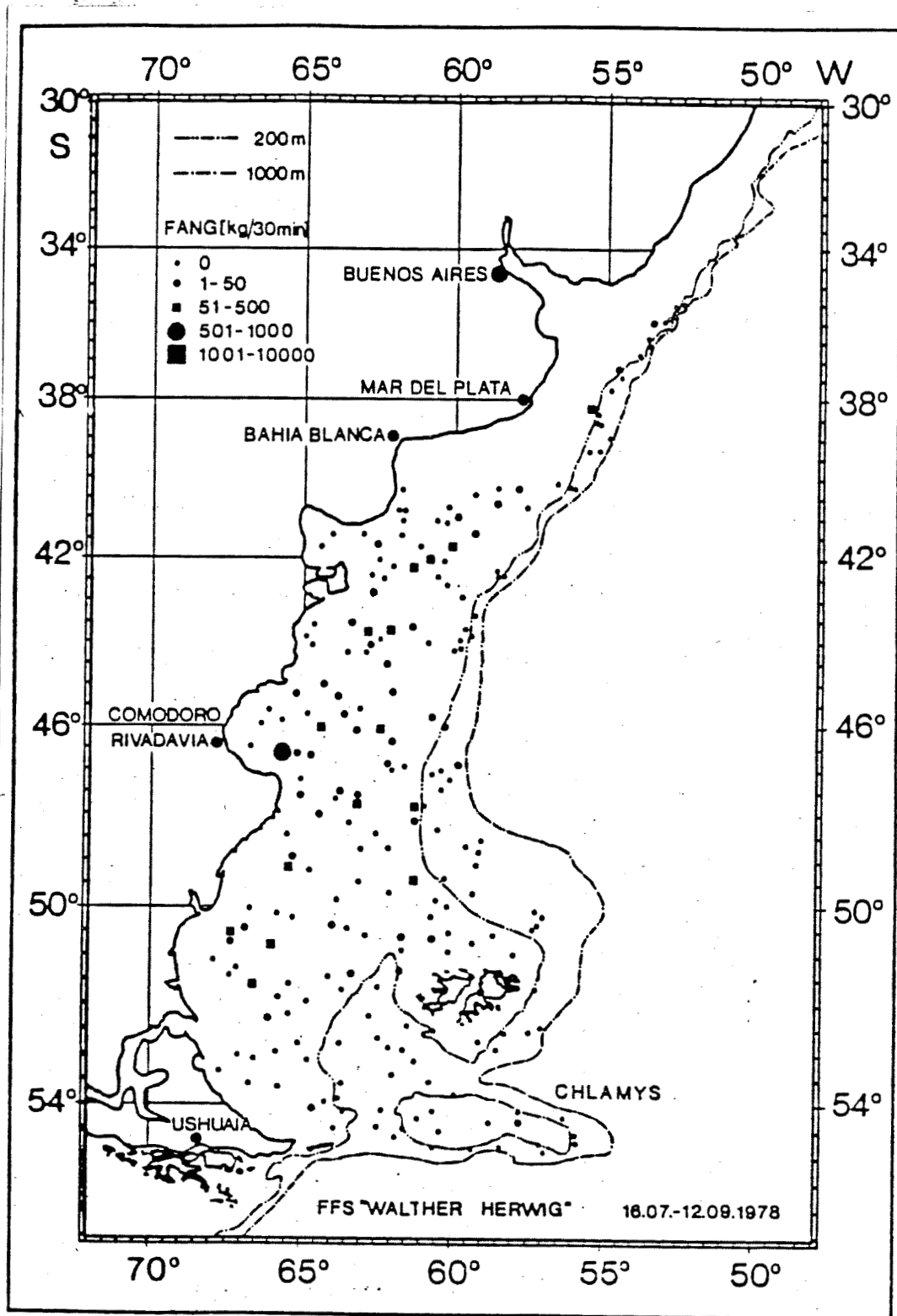


Abb. 38: *Chlamys patagonica* (Pilgermuschel)

Vorkommen und Fangmengen im Suedwinter 1978

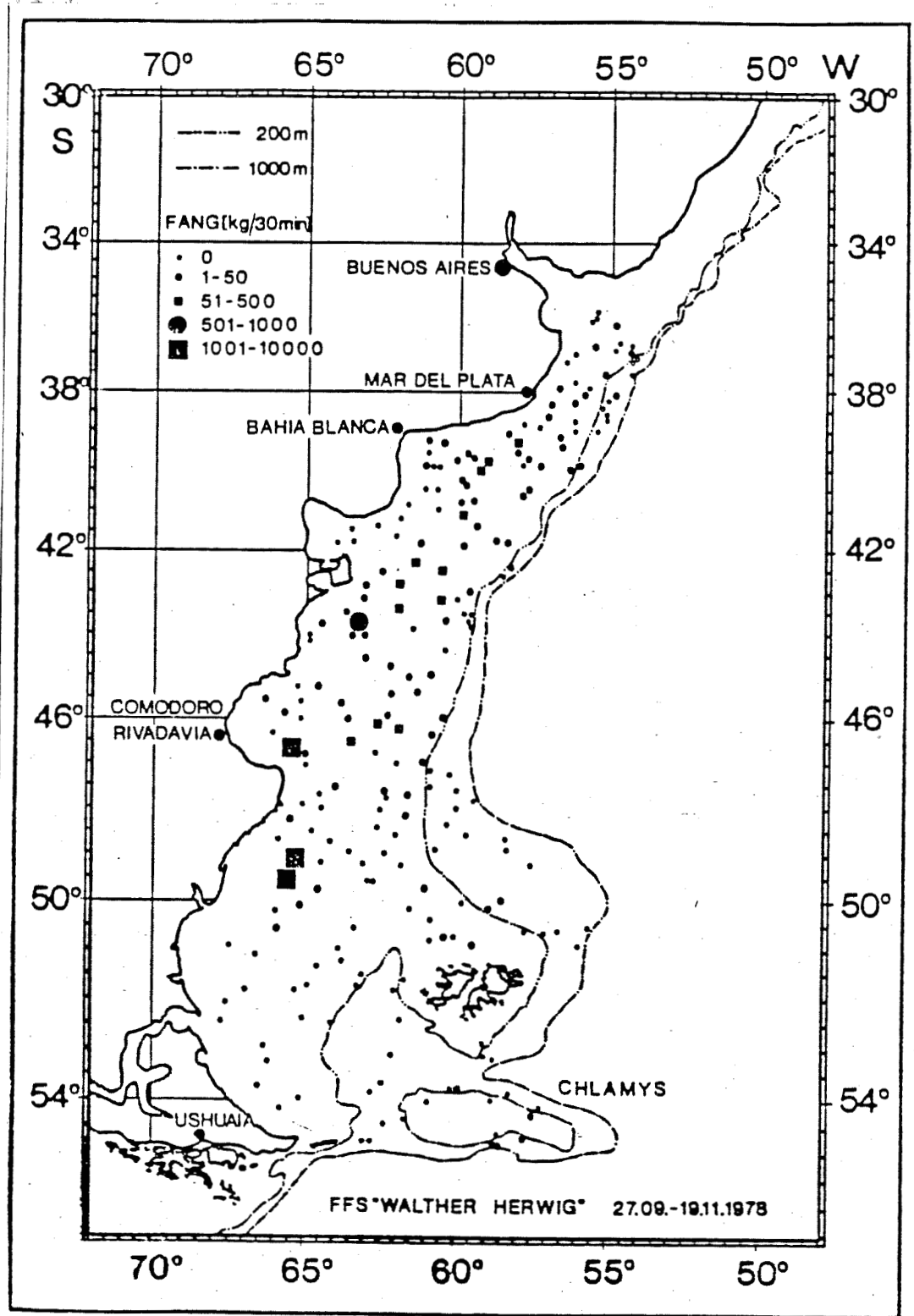


Abb. 39: *Chlamys patagonica* (Pilgermuschel)

Vorkommen und Fangmengen im Suedfruehling 1978

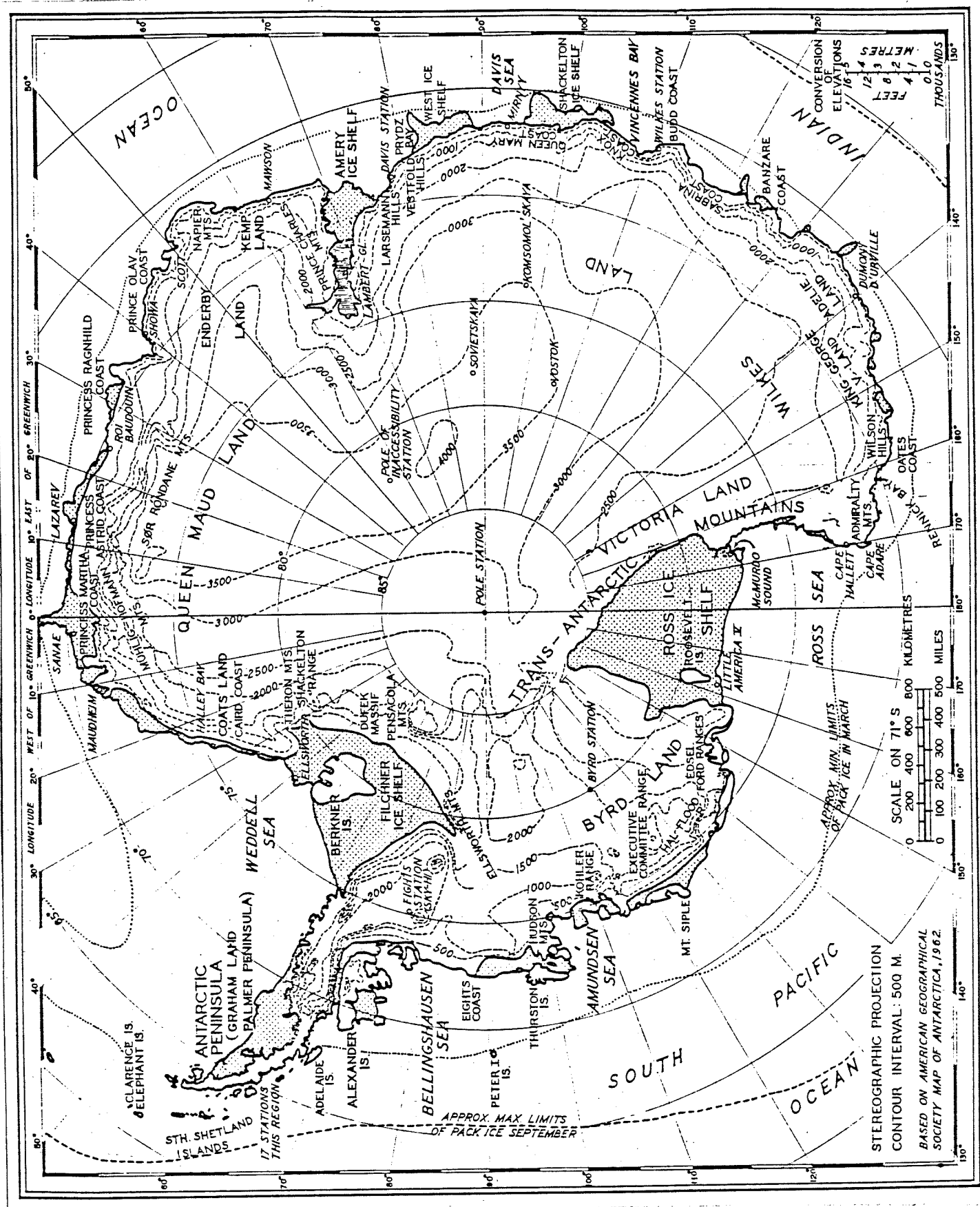


Fig. 2. Morphology of Antarctica.

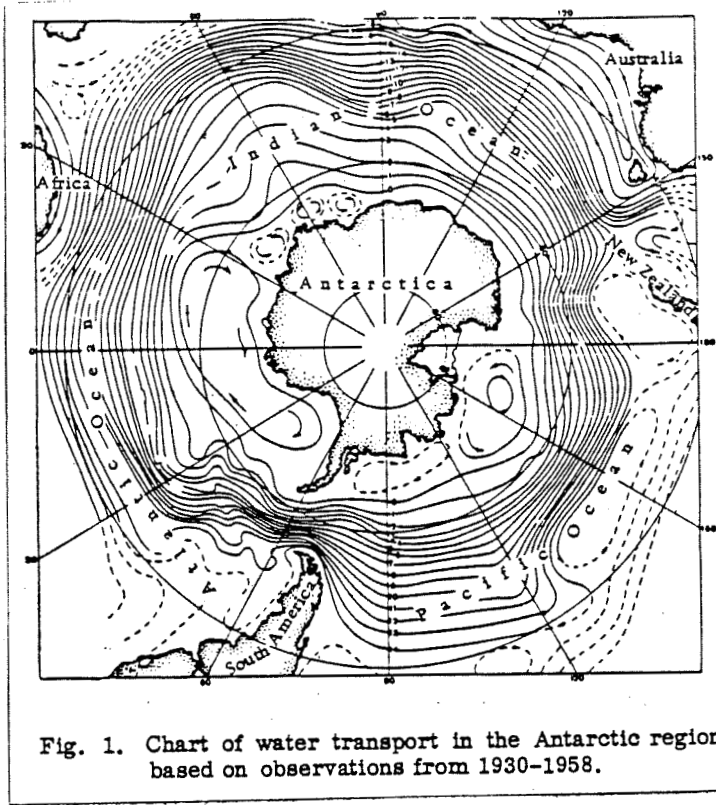


Fig. 1. Chart of water transport in the Antarctic region based on observations from 1930-1958.

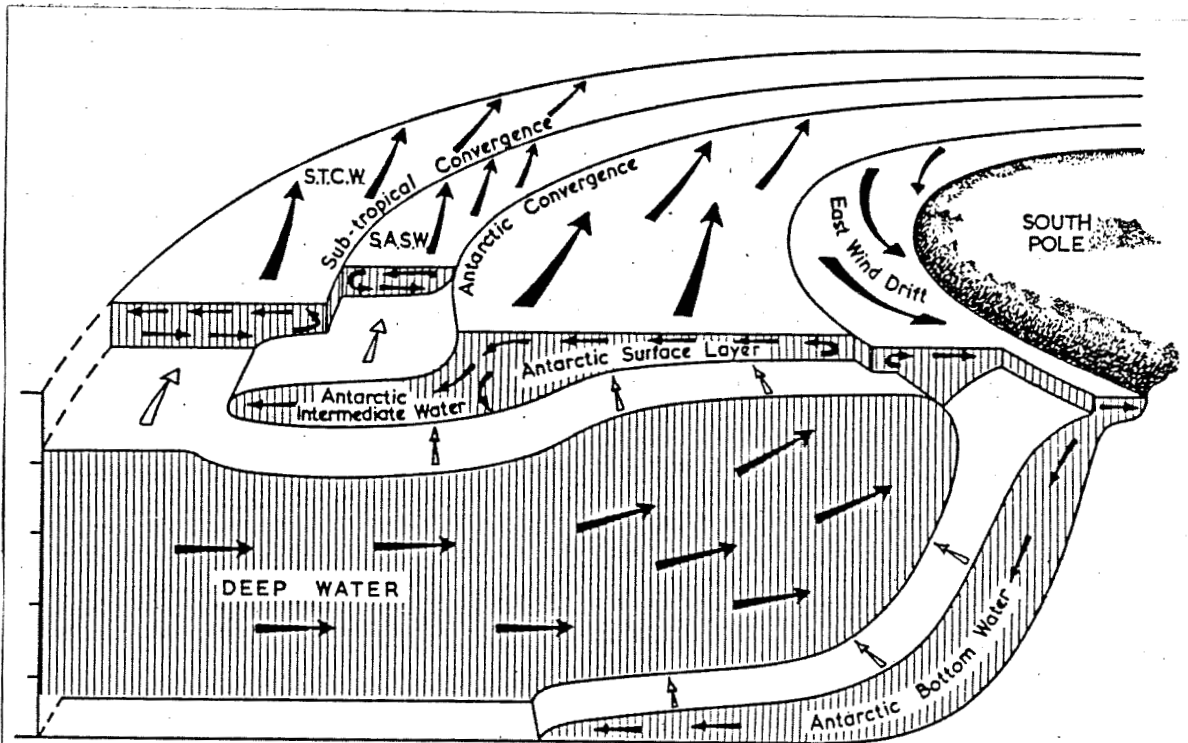


Fig. 1. A three dimensional diagrammatic representation of the water masses and circulation of the Southern Ocean. S.A.S.W. = Subantarctic surface water. S.T.C.W. = Subtropical central water. (previously unpublished diagram by R. I. CURRIE).

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| CODE-NUMBER | SCIENTIFIC NAME | DATE | AUTHOR - CODE FOR CROSS REF. |
|-------------|------------------|------|------------------------------|
| 3.14(15) | STREPTAXIDAE | | |
| 3.15 | PELECYPODA | | |
| 3.16 | PRIONODESMACEA | | |
| 3.16()064 | LIMOPSIS | 1827 | SASSI |
| 3.16()067 | YOLDIA | 1842 | MOELLER |
| 3.16()070 | PSEUDODON | 1844 | GOULD |
| 3.16(01) | NUCULIDAE | | |
| 3.16(01)049 | ACILA | 1858 | ADAMS |
| 3.16(01)068 | NUCULA | 1799 | LAMARCK |
| 3.16(02) | NUCULANIDAE | | |
| 3.16(03) | SOLEMYACIDAE | | |
| 3.16(03)047 | SOLEMYA | 1818 | LAMARCK |
| 3.16(04) | ARCIDAE | | |
| 3.16(04)005 | ARCA | 1758 | LINNAEUS |
| 3.16(04)071 | ANADARA | 1830 | DESHAYES |
| 3.16(05) | UNIONIDAE | | |
| 3.16(05)010 | CHRISTARIA | 1817 | SCHUMACHER |
| 3.16(05)011 | ANODONTA | 1799 | LAMARCK |
| 3.16(05)013 | HYRIOPSIS | 1853 | CONRAD |
| 3.16(05)019 | UNIO | 1788 | RETZIUS |
| 3.16(05)029 | LAMPSILIS | 1820 | RAFINESQUE |
| 3.16(05)031 | PLEUROBEMA | 1819 | RAFINESQUE |
| 3.16(05)035 | VELESUNIO | 1934 | IREDALE |
| 3.16(05)051 | UNIOMERUS | 1853 | CONRAD |
| 3.16(05)052 | LIGUMIA | 1840 | SWAINSON |
| 3.16(05)054 | LAMELLIDENS | 1900 | SIMPSON |
| 3.16(06) | PTERIIDAE | | |
| 3.16(06)006 | PINCTADA | 1798 | BOLTEN |
| 3.16(06)009 | PINNA | 1758 | LINNAEUS |
| 3.16(06)023 | PTERIA | 1777 | SCOPOLI |
| 3.16(07) | OSTREIDAE | | |
| 3.16(07)002 | OSTREA | 1758 | LINNAEUS |
| 3.16(07)007 | GRYPHAEA | 1801 | LAMARCK |
| 3.16(07)008 | CRASSOSTREA | 1897 | SACCO |
| 3.16(07)046 | PYCNODONTE | 1835 | FISCHER-WALDHEIM |
| 3.16(08) | PECTINIDAE | | |
| 3.16(08)003 | PECTEN | 1776 | MUELLER |
| 3.16(08)014 | PLACOPECTEN | 1897 | VERRILL |
| 3.16(08)020 | PROPEAMUSSIUM | 1884 | GREGORIO |
| 3.16(08)022 | EQUICHLAMYS | 1929 | IREDALE |
| 3.16(08)036 | CHLAMYS | 1798 | BOLTEN |
| 3.16(08)039 | MINACHLAMYS | 1929 | IREDALE |
| | A EQUIPECTEN | 1886 | FISCHER |
| | VIDE MIMACHLAMYS | | 3.16(08)039 |
| 3.16(08)040 | NOTOVOLA | 1927 | FINLAY |
| 3.16(08)050 | SPONDYLUS | 1758 | LINNAEUS |
| 3.16(08)053 | AMUSIUM | 1798 | BOLTEN |
| 3.16(08)066 | PATINOPECTEN | 1898 | DALL |
| 3.16(09) | ANOMIIDAE | | |
| 3.16(09)015 | ANOMIA | 1758 | LINNAEUS |
| 3.16(09)017 | ENIGMONIA | 1918 | IREDALE |
| 3.16(09)021 | PLACUNA | 1786 | SOLANDER |
| 3.16(09)055 | MONIA | 1850 | GRAY |
| 3.16(09)056 | ISOMONIA | 1897 | DAUTZENBERG AND FISCHER |
| 3.16(10) | MYTILIDAE | | |
| 3.16(10)001 | MYTILUS | 1758 | LINNAEUS |
| 3.16(10)004 | LITHODOMUS | 1817 | CUVIER |
| 3.16(10)012 | SEPTIFER | 1848 | RECLUZ |
| 3.16(10)025 | CHLOROMYA | 1853 | MOERCH |
| 3.16(10)026 | CHOROMYTIUS | | |

B-55 Scallops, pectens
Coquilles St. Jacques
Vieiras

Nominal catches by species, fishing areas and countries or areas
Captures nominales par espèces, zones de pêche et pays ou zones
Capturas nominales por especies, áreas de pesca y países o áreas

| Species Espèce Especie | Fishing area Zone de pêche Area de pesca | 1981 mt | 1982 mt | 1983 mt | 1984 mt |
|------------------------------|--|------------|------------|------------|------------|
| Chile | 87 | - | 608 | 1 086 | 5 278 |
| Peru | 87 | 5 399 | 4 953 | 3 866 | 2 919 |
| Area total | 87 | 5 399 | 5 561 | 4 952 | 8 197 |
| Species total | S | 15 929 | 35 678 | 38 748 | 41 317 F |
| Group total | S | 575 626 | 523 937 | 546 663 | 817 976 |

| Species Espèce Especie | Fishing area Zone de pêche Area de pesca | 1981 mt | 1982 mt | 1983 mt | 1984 mt | Species Espèce Especie | Fishing area Zone de pêche Area de pesca | 1981 mt | 1982 mt | 1983 mt | 1984 mt |
|---|--|------------|------------|------------|------------|--|--|------------|------------|------------|------------|
| Japanese scallop Pecten japonais Vieira japonesa <i>Pecten yessoensis</i> 3,16(08)003,07 JSC | | | | | | Calico scallop Peigne calicot Peine percal <i>Argopecten gibbus</i> 3,16(08)030,01 SCC | | | | | |
| Japan | 61 | 150 234 | 176 371 | 213 247 | 209 187 | USA | 31 | 146 773 | 110 512 | 96 509 | 395 710 |
| Korea Rep | 61 | 10 | 8 | 49 | 35 | Area total | 31 | 146 773 | 110 512 | 96 509 | 395 710 |
| USSR | 61 | 1 760 | 1 645 | 2 138 | 1 532 | Species total | S | 146 773 | 110 512 | 96 509 | 395 710 |
| Other nei A | 61 | 163 | 109 | 28 | 2 | Bay scallop Peigne baie Peine cailetero <i>Argopecten irradians</i> 3,16(08)030,02 SCB | | | | | |
| Area total | 61 | 152 167 | 178 133 | 215 462 | 210 756 | USA | 21 | 1 643 | 5 972 | 7 983 | 5 014 |
| Species total | S | 152 167 | 178 133 | 215 462 | 210 756 | Area total | 21 | 1 643 | 5 972 | 7 983 | 5 014 |
| Common scallop Coquille St Jacques Vieira <i>Pecten maximus</i> 3,16(08)003,09 SCE | | | | | | Icelandic scallop Peigne islandais Peine islandico <i>Chlamys islandica</i> 3,16(08)036,03 ISC | | | | | |
| Belgium | 27 | 412 | 390 | 589 | 525 | USA | 21 | ... | ... | 1 595 | - |
| France | 27 | 11 937 | 11 501 | 9 792 | 9 576 | Area total | 21 | ... | ... | 1 595 | - |
| Iceland | 27 | 10 186 | 12 076 | 15 185 | 15 583 | Species total | S | ... | ... | 1 595 | - |
| Ireland | 27 | 410 | 603 | 418 | 330 | Queen scallop Vanneau Volandeira <i>Chlamys opercularis</i> 3,16(08)036,05 QSC | | | | | |
| Spain | 27 | 6 | 10 | 32 | 33 F | Faeroe Is | 27 | 2 189 | 1 614 | 2 680 | 3 112 F |
| UK Engld Wal | 27 | 3 026 | 1 759 | 2 750 | 3 679 | France | 27 | - | 10 | - | - |
| UK Scotland | 27 | 5 521 | 6 533 | 5 076 | 6 000 | Ireland | 27 | 16 | 14 | 58 | 53 |
| UK No Ireld | 27 | 33 | 15 | 3 | 104 | UK Engld Wal | 27 | 2 953 | 2 096 | 4 207 | 2 827 |
| UK Channel I | 27 | 24 | 15 | 22 | 13 | UK Scotland | 27 | 5 684 | 3 699 | 4 433 | 4 167 |
| UK Isle Man | 27 | 1 645 | 1 185 | 1 175 | 1 977 | UK No Ireld | 27 | 0 | 0 | 8 | 0 |
| Area total | 27 | 33 200 | 34 087 | 35 042 | 37 820 F | UK Channel I | 27 | - | - | 0 | 3 |
| France | 37 | 23 | 34 | 9 | - | UK Isle Man | 27 | 4 084 | 2 846 | 5 640 | 4 016 |
| Spain | 37 | - | - | - | - | Area total | 27 | 14 926 | 10 279 | 17 026 | 14 178 F |
| Turkey | 37 | 1 | 0 | 4 | 7 | Species total | S | 14 926 | 10 279 | 17 026 | 14 178 F |
| Area total | 37 | 24 | 34 | 13 | 7 | Scallops nei Peignes nca Peines nep <i>Pectinidae</i> 3,16(08) SCX | | | | | |
| Species total | S | 33 224 | 34 121 | 35 055 | 37 827 F | France | 27 | - | 570 | 684 | 659 |
| New Zealand scallop Pecten de la Nouvelle Zélande Vieira de Nueva Zelândia <i>Pecten novaezealandiae</i> 3,16(08)003,13 SCZ | | | | | | Spain | 27 | - | 5 | 1 | 1 F |
| New Zealand | 81 | 1 620 | 1 790 | 4 011 | 4 612 | Area total | 27 | - | 575 | 685 | 660 F |
| Area total | 81 | 1 620 | 1 790 | 4 011 | 4 612 | Argentina | 41 | 5 | 27 | 1 824 | 2 151 |
| Species total | S | 1 620 | 1 790 | 4 011 | 4 612 | Area total | 41 | 5 | 27 | 1 824 | 2 151 |
| Giant Pacific scallop Pecten géant pacifique Vieira gigante del Pacifico <i>Pecten caurinus</i> 3,16(08)003,15 SCG | | | | | | Australia | 57 | 6 493 | 22 314 | 26 752 | 25 698 |
| USA | 67 | 20 343 | 5 956 | 3 677 | 5 445 | Indonesia | 57 | - | - | - | - |
| Area total | 67 | 20 343 | 5 956 | 3 677 | 5 445 | Area total | 57 | 6 493 | 22 314 | 26 752 | 25 698 |
| Species total | S | 20 343 | 5 956 | 3 677 | 5 445 | Australia | 71 | 2 612 | 4 014 | 3 074 | 2 898 |
| Sea scallop Pecten d'Amérique Vieira americana <i>Placopecten magellanicus</i> 3,16(08)014,04 SCA | | | | | | Indonesia | 71 | 225 | 326 | 463 | 447 |
| Canada | 21 | 89 892 | 65 101 | 51 289 | 34 900 | Philippines | 71 | 569 | 39 | 309 | 118 |
| USA | 21 | 98 137 | 75 778 | 74 325 | 66 358 | Area total | 71 | 3 406 | 4 379 | 3 846 | 3 463 |
| Area total | 21 | 188 029 | 140 879 | 125 614 | 101 258 | Australia | 81 | 626 | 2 822 | 689 | 148 |
| USA | 31 | 102 | - | 51 | 276 | Area total | 81 | 626 | 2 822 | 689 | 148 |
| Area total | 31 | 102 | - | 51 | 276 | | | | | | |
| Species total | S | 188 131 | 140 879 | 125 665 | 101 534 | | | | | | |

B-55 Scallops, pectens
Coquilles St. Jacques
Vieiras

Nominal catches by species, fishing areas and countries or areas
Captures nominales par espèces, zones de pêche et pays ou zones
Capturas nominales por especies, áreas de pesca y países o áreas

| Species Espèce Especie | Fishing area Zone de pêche Area de pesca | 1981 mt | 1982 mt | 1983 mt | 1984 mt | Species Espèce Especie | Fishing area Zone de pêche Area de pesca | 1981 mt | 1982 mt | 1983 mt | 1984 mt |
|---|--|------------|------------|------------|------------|--|--|------------|------------|------------|------------|
| Japanese scallop Pecten japonais Vieira japonesa <i>Pecten yessoensis</i> 3,16(08)003,07 JSC | | | | | | Calico scallop Peigne calicot Peine percal <i>Argopecten gibbus</i> 3,16(08)030,01 SCC | | | | | |
| Japan | 61 | 150 234 | 176 371 | 213 247 | 209 187 | USA | 31 | 146 773 | 110 512 | 96 509 | 395 710 |
| Korea Rep | 61 | 10 | 8 | 49 | 35 | Area total | 31 | 146 773 | 110 512 | 96 509 | 395 710 |
| USSR | 61 | 1 760 | 1 645 | 2 138 | 1 532 | Species total | S | 146 773 | 110 512 | 96 509 | 395 710 |
| Other nei A | 61 | 163 | 109 | 28 | 2 | Bay scallop Peigne baie Peine caletero <i>Argopecten irradians</i> 3,16(08)030,02 SCB | | | | | |
| Area total | 61 | 152 167 | 178 133 | 215 462 | 210 756 | USA | 21 | 1 643 | 5 972 | 7 983 | 5 014 |
| Species total | S | 152 167 | 178 133 | 215 462 | 210 756 | Area total | 21 | 1 643 | 5 972 | 7 983 | 5 014 |
| Common scallop Coquille St Jacques Vieira <i>Pecten maximus</i> 3,16(08)003,09 SCE | | | | | | Icelandic scallop Peigne islandais Peine islandico <i>Chlamys islandica</i> 3,16(08)036,03 ISC | | | | | |
| Belgium | 27 | 412 | 390 | 589 | 525 | USA | 21 | ... | ... | 1 595 | - |
| France | 27 | 11 937 | 11 501 | 9 792 | 9 576 | Area total | 21 | ... | ... | 1 595 | - |
| Iceland | 27 | 10 186 | 12 076 | 15 185 | 15 583 | Species total | S | 2 513 | 6 589 | 8 915 | 6 597 |
| Ireland | 27 | 410 | 603 | 418 | 330 | Queen scallop Vanneau Volandeira <i>Chlamys opercularis</i> 3,16(08)036,05 QSC | | | | | |
| Spain | 27 | 6 | 10 | 32 | 33 F | Faeroe Is | 27 | 2 189 | 1 614 | 2 680 | 3 112 F |
| UK Engld Wal | 27 | 3 026 | 1 759 | 2 750 | 3 679 | France | 27 | - | 10 | - | - |
| UK Scotland | 27 | 5 521 | 6 533 | 5 076 | 6 000 | Ireland | 27 | 16 | 14 | 58 | 53 |
| UK No Ireid | 27 | 33 | 15 | 3 | 104 | UK Engld Wal | 27 | 2 953 | 2 096 | 4 207 | 2 827 |
| UK Channel I | 27 | 24 | 15 | 22 | 13 | UK Scotland | 27 | 5 684 | 3 699 | 4 433 | 4 167 |
| UK Isle Man | 27 | 1 645 | 1 185 | 1 175 | 1 977 | UK No Ireid | 27 | 0 | 0 | 8 | 0 |
| Area total | 27 | 33 200 | 34 087 | 35 042 | 37 820 F | UK Channel I | 27 | - | - | 0 | 3 |
| France | 37 | 23 | 34 | 9 | - | UK Isle Man | 27 | 4 084 | 2 846 | 5 640 | 4 016 |
| Spain | 37 | - | - | - | - | Area total | 27 | 14 926 | 10 279 | 17 026 | 14 178 F |
| Turkey | 37 | 1 | 0 | 4 | 7 | Species total | S | 14 926 | 10 279 | 17 026 | 14 178 F |
| Area total | 37 | 24 | 34 | 13 | 7 | Scallops nei Peignes nca Peines nep <i>Pectinidae</i> 3,16(08) SCX | | | | | |
| Species total | S | 33 224 | 34 121 | 35 055 | 37 827 F | France | 27 | - | 570 | 684 | 659 |
| New Zealand scallop Pecten de la Nouvelle Zélande Vieira de Nueva Zelândia <i>Pecten novaezealandiae</i> 3,16(08)003,13 SCZ | | | | | | Spain | 27 | - | 5 | 1 | 1 F |
| New Zealand | 81 | 1 620 | 1 790 | 4 011 | 4 612 | Area total | 27 | - | 575 | 685 | 660 F |
| Area total | 81 | 1 620 | 1 790 | 4 011 | 4 612 | Argentina | 41 | 5 | 27 | 1 824 | 2 151 |
| Species total | S | 1 620 | 1 790 | 4 011 | 4 612 | Area total | 41 | 5 | 27 | 1 824 | 2 151 |
| Giant Pacific scallop Pecten géant pacifique Vieira gigante del Pacifico <i>Pecten caurinus</i> 3,16(08)003,15 SCG | | | | | | Australia | 57 | 6 493 | 22 314 | 26 752 | 26 698 |
| USA | 67 | 20 343 | 5 956 | 3 677 | 5 445 | Indonesia | 57 | - | - | - | - |
| Area total | 67 | 20 343 | 5 956 | 3 677 | 5 445 | Area total | 57 | 6 493 | 22 314 | 26 752 | 26 698 |
| Species total | S | 20 343 | 5 956 | 3 677 | 5 445 | Australia | 71 | 2 612 | 4 014 | 3 074 | 2 898 |
| Sea scallop Pecten d'Amérique Vieira americana <i>Placopecten magellanicus</i> 3,16(08)014,04 SCA | | | | | | Indonesia | 71 | 225 | 326 | 463 | 447 |
| Canada | 21 | 89 892 | 65 101 | 51 289 | 34 900 | Philippines | 71 | 569 | 39 | 309 | 118 |
| USA | 21 | 98 137 | 75 778 | 74 325 | 66 358 | Area total | 71 | 3 406 | 4 379 | 3 846 | 3 463 |
| Area total | 21 | 188 029 | 140 879 | 125 614 | 101 258 | Australia | 81 | 626 | 2 822 | 689 | 148 |
| USA | 31 | 102 | - | 51 | 276 | Area total | 81 | 626 | 2 822 | 689 | 148 |
| Area total | 31 | 102 | - | 51 | 276 | | | | | | |
| Species total | S | 188 131 | 140 879 | 125 665 | 101 534 | | | | | | |

B-55 Scallops; pectens
Coquilles St. Jacques
Vieiras

Nominal catches by species, fishing areas and countries or areas
Captures nominales par espèces, zones de pêche et pays ou zones
Capturas nominales por especies, áreas de pesca y países o áreas

| Species Espèce Especie | Fishing area Zone de pêche Area de pesca | 1981 mt | 1982 mt | 1983 mt | 1984 mt | Species Espèce Especie | Fishing area Zone de pêche Area de pesca | 1981 mt | 1982 mt | 1983 mt | 1984 mt |
|---|--|------------|------------|------------|------------|---|--|------------|------------|------------|------------|
| Japanese scallop Pecten japonais Vieira japonesa | | | | | | Calico scallop Peigne caillot Peine percal | | | | | |
| <i>Pecten yessoensis</i> 3,16(08)003,07 JSC | | | | | | <i>Argopecten gibbus</i> 3,16(08)030,01 SCC | | | | | |
| Japan | 61 | 150 234 | 176 371 | 213 247 | 209 187 | USA | 31 | 146 773 | 110 512 | 96 509 | 395 710 |
| Korea Rep | 61 | 10 | 8 | 49 | 35 | Area total | 31 | 146 773 | 110 512 | 96 509 | 395 710 |
| USSR | 61 | 1 760 | 1 645 | 2 138 | 1 532 | Species total | S | 146 773 | 110 512 | 96 509 | 395 710 |
| Other nei A | 61 | 163 | 109 | 28 | 2 | | | | | | |
| Area total | 61 | 152 167 | 178 133 | 215 462 | 210 756 | | | | | | |
| Species total | S | 152 167 | 178 133 | 215 462 | 210 756 | | | | | | |
| Common scallop Coquille St Jacques Vieira | | | | | | Bay scallop Peigne baie Peine caletero | | | | | |
| <i>Pecten maximus</i> 3,16(08)003,09 SCE | | | | | | <i>Argopecten irradians</i> 3,16(08)030,02 SCB | | | | | |
| Belgium | 27 | 412 | 390 | 589 | 525 | USA | 21 | 1 643 | 5 972 | 7 983 | 5 014 |
| France | 27 | 11 937 | 11 501 | 9 792 | 9 576 | Area total | 21 | 1 643 | 5 972 | 7 983 | 5 014 |
| Iceland | 27 | 10 186 | 12 076 | 15 185 | 15 583 | USA | 31 | 870 | 617 | 932 | 1 583 |
| Ireland | 27 | 410 | 603 | 418 | 330 | Area total | 31 | 870 | 617 | 932 | 1 583 |
| Spain | 27 | 6 | 10 | 32 | 33 F | Species total | S | 2 513 | 6 589 | 8 915 | 6 597 |
| UK Englnd Wal | 27 | 3 026 | 1 759 | 2 750 | 3 679 | | | | | | |
| UK Scotland | 27 | 5 521 | 6 533 | 5 076 | 6 000 | | | | | | |
| UK No Ireid | 27 | 33 | 15 | 3 | 104 | | | | | | |
| UK Channel I | 27 | 24 | 15 | 22 | 13 | | | | | | |
| UK Isle Man | 27 | 1 645 | 1 185 | 1 175 | 1 977 | | | | | | |
| Area total | 27 | 33 200 | 34 087 | 35 042 | 37 820 F | | | | | | |
| France | 37 | 23 | 34 | 9 | - | | | | | | |
| Spain | 37 | - | - | - | - | | | | | | |
| Turkey | 37 | 1 | 0 | 4 | 7 | | | | | | |
| Area total | 37 | 24 | 34 | 13 | 7 | | | | | | |
| Species total | S | 33 224 | 34 121 | 35 055 | 37 827 F | | | | | | |
| New Zealand scallop Pecten de la Nouvelle Zélande Vieira de Nueva Zelandia | | | | | | Icelandic scallop Peigne islandais Peine islandico | | | | | |
| <i>Pecten novaezealandiae</i> 3,16(08)003,13 SCZ | | | | | | <i>Chlamys islandica</i> 3,16(08)036,03 ISC | | | | | |
| New Zealand | 81 | 1 620 | 1 790 | 4 011 | 4 612 | USA | 21 | ... | ... | 1 595 | - |
| Area total | 81 | 1 620 | 1 790 | 4 011 | 4 612 | Area total | 21 | ... | ... | 1 595 | - |
| Species total | S | 1 620 | 1 790 | 4 011 | 4 612 | Species total | S | ... | ... | 1 595 | - |
| Giant Pacific scallop Pecten géant pacifique Vieira gigante del Pacifico | | | | | | Queen scallop Vanneau Volandeira | | | | | |
| <i>Pecten caurinus</i> 3,16(08)003,15 SCG | | | | | | <i>Chlamys opercularis</i> 3,16(08)036,05 QSC | | | | | |
| USA | 67 | 20 343 | 5 956 | 3 677 | 5 445 | Faeroe Is | 27 | 2 189 | 1 614 | 2 680 | 3 112 |
| Area total | 67 | 20 343 | 5 956 | 3 677 | 5 445 | France | 27 | - | 10 | - | - |
| Species total | S | 20 343 | 5 956 | 3 677 | 5 445 | Ireland | 27 | 16 | 14 | 58 | 53 |
| | | | | | | UK Englnd Wal | 27 | 2 953 | 2 096 | 4 207 | 2 827 |
| | | | | | | UK Scotland | 27 | 5 684 | 3 699 | 4 433 | 4 167 |
| | | | | | | UK No Ireid | 27 | 0 | 0 | 8 | 0 |
| | | | | | | UK Channel I | 27 | - | - | 0 | 3 |
| | | | | | | UK Isle Man | 27 | 4 084 | 2 846 | 5 640 | 4 016 |
| | | | | | | Area total | 27 | 14 926 | 10 279 | 17 026 | 14 178 |
| | | | | | | Species total | S | 14 926 | 10 279 | 17 026 | 14 178 |
| Sea scallop Pecten d'Amérique Vieira americana | | | | | | Scallops nei Peignes nca Peines nep | | | | | |
| <i>Placopecten magellanicus</i> 3,16(08)014,04 SCA | | | | | | <i>Pectinidae</i> 3,16(08) SCX | | | | | |
| Canada | 21 | 89 892 | 65 101 | 51 289 | 34 900 | France | 27 | - | 570 | 684 | 659 |
| USA | 21 | 98 137 | 75 778 | 74 325 | 66 358 | Spain | 27 | - | 5 | 1 | 1 |
| Area total | 21 | 188 029 | 140 879 | 125 614 | 101 258 | Area total | 27 | - | 575 | 685 | 660 |
| USA | 31 | 102 | - | 51 | 276 | Argentina | 41 | 5 | 27 | 1 824 | 2 151 |
| Area total | 31 | 102 | - | 51 | 276 | Area total | 41 | 5 | 27 | 1 824 | 2 151 |
| Species total | S | 188 131 | 140 879 | 125 665 | 101 534 | Australia | 57 | 6 493 | 22 314 | 26 752 | 26 698 |
| | | | | | | Indonesia | 57 | - | - | - | - |
| | | | | | | Area total | 57 | 6 493 | 22 314 | 26 752 | 26 698 |
| | | | | | | Australia | 71 | 2 612 | 4 014 | 3 074 | 2 898 |
| | | | | | | Indonesia | 71 | 225 | 326 | 463 | 447 |
| | | | | | | Philippines | 71 | 569 | 39 | 309 | 118 |
| | | | | | | Area total | 71 | 3 406 | 4 379 | 3 846 | 3 463 |
| | | | | | | Australia | 81 | 626 | 2 822 | 689 | 148 |
| | | | | | | Area total | 81 | 626 | 2 822 | 689 | 148 |

B-55 **Scallops, pectens** **Nominal catches by species, fishing areas and countries or areas**
Coquilles St. Jacques **Captures nominales par espèce, zones de pêche et pays ou zones**
Vieiras **Capturas nominales por especie, áreas de pesca y países o áreas**

| Species Espèce Especie | Fishing area Zone de pêche Area de pesca | 1981 mt | 1982 mt | 1983 mt | 1984 mt | Species Espèce Especie | Fishing area Zone de pêche Area de pesca | 1981 mt | 1982 mt | 1983 mt | 1984 mt |
|---|--|------------|------------|------------|------------|--|--|------------|------------|------------|------------|
| Japanese scallop Pecten japonais Vieira japonesa <i>Pecten yessoensis</i> 3,16(08)003,07 JSC | | | | | | Calico scallop Peigne callcot Peine percal <i>Argopecten gibbus</i> 3,16(08)030,01 SCC | | | | | |
| Japan | 61 | 150 234 | 176 371 | 213 247 | 209 187 | USA | 31 | 146 773 | 110 512 | 96 509 | 395 710 |
| Korea Rep | 61 | 10 | 8 | 49 | 35 | Area total | 31 | 146 773 | 110 512 | 96 509 | 395 710 |
| USSR | 61 | 1 760 | 1 645 | 2 138 | 1 532 | Species total | S | 146 773 | 110 512 | 96 509 | 395 710 |
| Other nei A | 61 | 163 | 109 | 28 | 2 | Bay scallop Peigne baie Peine caletero <i>Argopecten irradians</i> 3,16(08)030,02 SCB | | | | | |
| Area total | 61 | 152 167 | 178 133 | 215 462 | 210 756 | USA | 21 | 1 643 | 5 972 | 7 983 | 5 014 |
| Species total | S | 152 167 | 178 133 | 215 462 | 210 756 | Area total | 21 | 1 643 | 5 972 | 7 983 | 5 014 |
| Common scallop Coquille St Jacques Vieira <i>Pecten maximus</i> 3,16(08)003,09 SCE | | | | | | Icelandic scallop Peigne islandais Peine islándico <i>Chlamys islandica</i> 3,16(08)036,03 ISC | | | | | |
| Belgium | 27 | 412 | 390 | 589 | 525 | USA | 21 | ... | ... | 1 595 | - |
| France | 27 | 11 937 | 11 501 | 9 792 | 9 576 | Area total | 21 | ... | ... | 1 595 | - |
| Iceland | 27 | 10 186 | 12 076 | 15 185 | 15 583 | Species total | S | ... | ... | 1 595 | - |
| Ireland | 27 | 410 | 603 | 418 | 330 | Queen scallop Vanneau Volandeira <i>Chlamys opercularis</i> 3,16(08)036,05 QSC | | | | | |
| Spain | 27 | 6 | 10 | 32 | 33 F | Faeroe Is | 27 | 2 189 | 1 614 | 2 680 | 3 112 F |
| UK Engld Wal | 27 | 3 026 | 1 759 | 2 750 | 3 679 | France | 27 | - | 10 | - | - |
| UK Scotland | 27 | 5 521 | 6 533 | 5 076 | 6 000 | Ireland | 27 | 16 | 14 | 58 | 53 |
| UK No Ireld | 27 | 33 | 15 | 3 | 104 | UK Engld Wal | 27 | 2 953 | 2 096 | 4 207 | 2 827 |
| UK Channel I | 27 | 24 | 15 | 22 | 13 | UK Scotland | 27 | 5 684 | 3 699 | 4 433 | 4 167 |
| UK Isie Man | 27 | 1 645 | 1 185 | 1 175 | 1 977 | UK No Ireld | 27 | 0 | 0 | 8 | 0 |
| Area total | 27 | 33 200 | 34 087 | 35 042 | 37 820 F | UK Channel I | 27 | - | - | 0 | 3 |
| France | 37 | 23 | 34 | 9 | - | UK Isie Man | 27 | 4 084 | 2 846 | 5 640 | 4 016 |
| Spain | 37 | - | - | - | - | Area total | 27 | 14 926 | 10 279 | 17 026 | 14 178 F |
| Turkey | 37 | 1 | 0 | 4 | 7 | Species total | S | 14 926 | 10 279 | 17 026 | 14 178 F |
| Area total | 37 | 24 | 34 | 13 | 7 | Scallops nei Peignes nca Peines nep <i>Pectinidae</i> 3,16(08) SCX | | | | | |
| Species total | S | 33 224 | 34 121 | 35 055 | 37 827 F | France | 27 | - | 570 | 684 | 659 |
| New Zealand scallop Pecten de la Nouvelle Zélande Vieira de Nueva Zelandia <i>Pecten novaezealandiae</i> 3,16(08)003,13 SCZ | | | | | | Spain | 27 | - | 5 | 1 | 1 F |
| New Zealand | 81 | 1 620 | 1 790 | 4 011 | 4 612 | Area total | 27 | - | 575 | 685 | 660 F |
| Area total | 81 | 1 620 | 1 790 | 4 011 | 4 612 | Argentina | 41 | 5 | 27 | 1 824 | 2 151 |
| Species total | S | 1 620 | 1 790 | 4 011 | 4 612 | Area total | 41 | 5 | 27 | 1 824 | 2 151 |
| Giant Pacific scallop Pecten géant pacifique Vieira gigante del Pacifico <i>Pecten caurinus</i> 3,16(08)003,15 SCG | | | | | | Australia | 57 | 6 493 | 22 314 | 26 752 | 26 698 |
| USA | 67 | 20 343 | 5 956 | 3 677 | 5 445 | Indonesia | 57 | - | - | - | - |
| Area total | 67 | 20 343 | 5 956 | 3 677 | 5 445 | Area total | 57 | 6 493 | 22 314 | 26 752 | 26 698 |
| Species total | S | 20 343 | 5 956 | 3 677 | 5 445 | Australia | 71 | 2 612 | 4 014 | 3 074 | 2 898 |
| Sea scallop Pecten d'Amérique Vieira americana <i>Placopecten magellanicus</i> 3,16(08)014,04 SCA | | | | | | Indonesia | 71 | 225 | 326 | 463 | 447 |
| Canada | 21 | 89 892 | 65 101 | 51 289 | 34 900 | Philippines | 71 | 569 | 39 | 309 | 118 |
| USA | 21 | 98 137 | 75 778 | 74 325 | 66 358 | Area total | 71 | 3 406 | 4 379 | 3 846 | 3 463 |
| Area total | 21 | 188 029 | 140 879 | 125 614 | 101 258 | Australia | 81 | 626 | 2 822 | 689 | 148 |
| USA | 31 | 102 | - | 51 | 276 | Area total | 81 | 626 | 2 822 | 689 | 148 |
| Area total | 31 | 102 | - | 51 | 276 | | | | | | |
| Species total | S | 188 131 | 140 879 | 125 665 | 101 534 | | | | | | |

Scallops, pectens
Coquilles St. Jacques
Vieiras

Nominal catches by species, fishing areas and countries or areas
Captures nominales par espèces, zones de pêche et pays ou zones
Capturas nominales por especies, áreas de pesca y países o áreas

| Scallops, pectens | | | | | Nominal catches by species, fishing areas and countries or areas | | | | | |
|-------------------------------|------|---------|---------|---------|--|---------------|---------|---------|---------|---------|
| Coquilles St. Jacques | | | | | Captures nominales par espèces, zones de pêche et pays ou zones | | | | | |
| Vieiras | | | | | Capturas nominales por especies, áreas de pesca y países o áreas | | | | | |
| Fishing area | 1981 | 1982 | 1983 | 1984 | Species | Fishing area | 1981 | 1982 | 1983 | 1984 |
| Zone de pêche | mt | mt | mt | mt | Especie | Zone de pêche | mt | mt | mt | mt |
| Area de pesca | | | | | Especie | Area de pesca | | | | |
| Bay scallop | | | | | Calico scallop | | | | | |
| <i>Pecten yessoensis</i> | | | | | <i>Argopecten gibbus</i> | | | | | |
| 3,16(08)003,07 | | | | | 3,16(08)030,01 | | | | | |
| JSC | | | | | SCC | | | | | |
| USA | 61 | 150 234 | 176 371 | 213 247 | USA | 31 | 146 773 | 110 512 | 96 509 | 395 710 |
| Canada | 61 | 10 | 8 | 49 | 35 | | | | | |
| USA | 61 | 1760 | 1645 | 2 138 | 1 532 | Area total | 31 | 146 773 | 110 512 | 96 509 |
| Canada | 61 | 163 | 109 | 28 | 2 | Species total | S | 146 773 | 110 512 | 96 509 |
| Area total | 61 | 152 167 | 178 133 | 215 462 | 210 756 | | | | | |
| Species total | S | 152 167 | 178 133 | 215 462 | 210 756 | | | | | |
| Bay scallop | | | | | Bay scallop | | | | | |
| <i>Pecten maximus</i> | | | | | <i>Argopecten irradians</i> | | | | | |
| 3,16(08)003,09 | | | | | 3,16(08)030,02 | | | | | |
| SCE | | | | | SCB | | | | | |
| USA | 27 | 412 | 390 | 589 | 525 | USA | 21 | 1 643 | 5 972 | 7 983 |
| Canada | 27 | 11 937 | 11 501 | 9 792 | 9 576 | Area total | 21 | 1 643 | 5 972 | 7 983 |
| USA | 27 | 10 186 | 12 076 | 15 185 | 15 583 | USA | 31 | 870 | 617 | 932 |
| Canada | 27 | 410 | 603 | 418 | 330 | Area total | 31 | 870 | 617 | 932 |
| USA | 27 | 6 | 10 | 32 | 33 F | Species total | S | 2 513 | 6 589 | 8 915 |
| Canada | 27 | 3 026 | 1 759 | 2 750 | 3 679 | | | | | |
| USA | 27 | 5 521 | 6 533 | 5 076 | 6 000 | | | | | |
| Canada | 27 | 33 | 15 | 3 | 104 | | | | | |
| USA | 27 | 24 | 15 | 22 | 13 | | | | | |
| Canada | 27 | 1 645 | 1 185 | 1 175 | 1 977 | | | | | |
| Area total | 27 | 33 200 | 34 087 | 35 042 | 37 820 F | | | | | |
| Species total | S | 33 224 | 34 121 | 35 055 | 37 827 F | | | | | |
| Bay scallop | | | | | Icelandic scallop | | | | | |
| <i>Pecten novaezealandiae</i> | | | | | <i>Chlamys islandica</i> | | | | | |
| 3,16(08)003,13 | | | | | 3,16(08)036,03 | | | | | |
| SCZ | | | | | ISC | | | | | |
| USA | 27 | 2 189 | 1 614 | 2 680 | 3 112 F | USA | 21 | ... | ... | 1 595 |
| Canada | 27 | 16 | 14 | 58 | 53 | Area total | 21 | ... | ... | 1 595 |
| USA | 27 | 2 953 | 2 096 | 4 207 | 2 827 | Species total | S | ... | ... | 1 595 |
| Canada | 27 | 5 684 | 3 699 | 4 433 | 4 167 | | | | | |
| USA | 27 | 0 | 0 | 8 | 0 | | | | | |
| Canada | 27 | 0 | 0 | 0 | 3 | | | | | |
| USA | 27 | 4 084 | 2 846 | 5 640 | 4 016 | | | | | |
| Canada | 27 | 14 926 | 10 279 | 17 026 | 14 178 F | | | | | |
| Area total | 27 | 14 926 | 10 279 | 17 026 | 14 178 F | | | | | |
| Species total | S | 14 926 | 10 279 | 17 026 | 14 178 F | | | | | |
| Queen scallop | | | | | Queen scallop | | | | | |
| <i>Pecten caurinus</i> | | | | | <i>Pecten opercularis</i> | | | | | |
| 3,16(08)003,15 | | | | | 3,16(08)036,05 | | | | | |
| SCG | | | | | QSC | | | | | |
| USA | 67 | 20 343 | 5 956 | 3 677 | 5 445 | USA | 27 | 570 | 684 | 659 |
| Canada | 67 | 20 343 | 5 956 | 3 677 | 5 445 | Spain | 27 | 5 | 1 | 1 F |
| Species total | S | 20 343 | 5 956 | 3 677 | 5 445 | Area total | 27 | 575 | 685 | 660 F |
| Bay scallop | | | | | Scallops nei | | | | | |
| <i>Pecten magellanicus</i> | | | | | <i>Pectinidae</i> | | | | | |
| 3,16(08)014,04 | | | | | 3,16(08) | | | | | |
| SCA | | | | | SCX | | | | | |
| USA | 21 | 89 892 | 65 101 | 51 289 | 34 900 | France | 27 | 570 | 684 | 659 |
| Canada | 21 | 98 137 | 75 778 | 74 325 | 66 358 | Spain | 27 | 5 | 1 | 1 F |
| Area total | 21 | 188 029 | 140 879 | 125 614 | 101 258 | Area total | 27 | 575 | 685 | 660 F |
| Species total | S | 188 131 | 140 879 | 125 665 | 101 534 | Argentina | 41 | 5 | 27 | 1 824 |
| | | | | | | Area total | 41 | 5 | 27 | 1 824 |
| | | | | | | Australia | 57 | 6 493 | 22 314 | 26 752 |
| | | | | | | Indonesia | 57 | - | - | - |
| | | | | | | Area total | 57 | 6 493 | 22 314 | 26 752 |
| | | | | | | Australia | 71 | 2 612 | 4 014 | 3 074 |
| | | | | | | Indonesia | 71 | 225 | 326 | 463 |
| | | | | | | Philippines | 71 | 569 | 39 | 309 |
| | | | | | | Area total | 71 | 3 406 | 4 379 | 3 846 |
| | | | | | | Australia | 81 | 626 | 2 822 | 689 |
| | | | | | | Area total | 81 | 626 | 2 822 | 689 |

B-55 Scallops, pectens
Coquilles St. Jacques
Vieiras

Nominal catches by species, fishing areas and countries or areas
Captures nominales par espèces, zones de pêche et pays ou zones
Capturas nominales por especies, áreas de pesca y países o áreas

| Species Especie Especie | Fishing area Zone de pêche Area de pesca | 1981 mt | 1982 mt | 1983 mt | 1984 mt |
|-------------------------------|--|------------|------------|------------|------------|
| Chile | 87 | - | 608 | 1 086 | 5 278 |
| Peru | 87 | 5 399 | 4 953 | 3 866 | 2 919 |
| Area total | 87 | 5 399 | 5 561 | 4 952 | 8 197 |
| Species total | S | 15 929 | 35 678 | 38 748 | 41 317 F |
| Group total | S | 575 626 | 523 937 | 546 663 | 817 976 |