CONCLUSIONS AND RECOMMENDATIONS

Marlborough's extensive and intricate coastline has a diverse marine environment. A total of 129 sites of biological significance have been identified in the area stretching from Cape Soucis (Croisilles Harbour), through the Marlborough Sounds and down the east coast of Marlborough to Willawa Point*.

Due to the nature of the marine environment and the difficulties associated with underwater surveys there are large areas of Marlborough's marine environment that have never been surveyed and the knowledge of the ecosystem is limited. Therefore the list and location of significant sites in this report is not complete. Sites not shown on the maps may well still have significant biological value. Interpretation and use of this report must keep these limitations in mind. For example, there will be many significant sites that have yet to be discovered or recorded. Also, many marine sites have been ranked "L" because they are not well known and it is probable that some could have been ranked higher if more information was available. Therefore it should not be assumed that sites with no identified status do not support "M" or "H" values. Many sites that did not achieve medium or high scores still have ecological value and should not be regarded as being of "no value".

The amount and type of information for each site varied considerably. Some sites have had extensive scientific assessments, others have only been briefly visited by scientists and some are known only through personal accounts from fishers or divers. The spatial extent of sites that have not been surveyed cannot be accurately mapped. It is important that these sites be surveyed to describe biological attributes and determine boundaries. A list of sites with limited information but potentially supporting higher biological values is listed in Table 11.

The type and size of significant sites identified varies greatly, from large marine areas with highly mobile marine mammals, such as the Hector's dolphin in Cloudy and Clifford Bays, through to small sites occupied by non-mobile species such as the 1.9 ha rhodolith bed in Picnic Bay, Tawhitinui Reach. There are significant sites that support threatened species, such as the sea sedge, and sites that are significant for their broader biodiversity or ecological values. Some sites, such as biogenic reefs, are significant because environmental conditions have enabled a species or number of species to become so abundant that they form three dimensional structures on the sea floor. These biogenic reefs provide habitat for many other species including commercially important ones[90,320].

Many of the significant sites identified in this report are fragile and therefore vulnerable to human disturbance and damage from a variety of sources. Many more sites could be considered significant in the future if they were managed and allowed to recover to the state they would have been before human activities degraded them.

At present, only one significant marine site is totally protected (Long Island-Kokomohua Marine Reserve[91,113,114]) despite the many benefits of protected marine areas[18,64,66,80,91,98,145,146,208,210,244,293,345,346]. The majority of significant sites are largely unprotected, apart from some fisheries restrictions, and

Waitata Bay (Rob Davidson)

* NOTE: *Some significant sites are made up of multiple parts.*

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remain vulnerable, particularly the offshore soft sediment habitats and communities[40,90]. Many of the biological communities that are found at these sites are easily damaged and the recovery process slow.

There are still many pressures facing the marine environment. Infilling and reclamation gradually removes habitat available for many species and therefore any applications to infill or reclaim areas such as within marinas and ports should be carefully assessed in terms of scale, need and impacts. It is important to continue to control and reduce the amount of contaminants reaching the marine environment. This can be achieved by managing effluent, chemical use and disposal, and by establishing buffer zones between the sea and contaminant sources such as farms, towns, and industrial areas. Ongoing border and vector control is important in order to minimise the chance of new pest species arriving in New Zealand as it is virtually impossible to control subtidal marine pests once they establish.

It is important that long-term, co-ordinated management of significant marine sites in Marlborough, including surveying and identifying new sites, is supported. This programme should have the following aims.

1 Survey the significant sites identified in this report where the values and boundaries are uncertain.

2 Identify and describe new sites through field surveys and interviews with scientists, iwi, fishers, conservationists and local community groups.

3 Identify threats relevant to individual sites (not all sites or values are necessarily threatened).

4 Co-ordinate a muliti-agency approach to manage each significant site or group of sites to ensure long-term sustainability and protection.

5 Ensure biological information is stored in a database for future use.

Table 11 - List of Sites that have been included in the present report, but require further investigation to determine ecological values and significance

Number	Name	Type	Information source	Information required
2.3	Northwest D'Urville Islands	Biogenic soft bottom habitat	Commercial fisher, mention in paper (Bradstock & Gordon 1983)	Determine presence/absence biogenic habitats, boundary and quality of any biogenic habitats
2.20	Chetwodes	Biogenic soft bottom habitat	C. Duffy pers. comm.	Determine presence/absence biogenic habitats, boundary and quality of any biogenic habitats
2.31	Port Gore - outer	Biogenic soft bottom habitat	Commercial fisher, mention in paper (Bradstock & Gordon 1983)	Determine presence/absence biogenic habitats, boundary and quality of any biogenic habitats
2.32	Port Gore	Biogenic soft bottom habitat	Information from scientist (Cameron Hay)	Determine presence/absence biogenic habitats, boundary and quality of any biogenic habitats
3.21	Kenepuru Estuary	Estuary	Davidson et al., 1995	Qualitative and quantitative survey of habitats and associated species
4.11	Bob's Bay and Waikawa Bay	Shell tubeworm bed	Duffy et al., in prep. Waikawa marina proposal	Identify sabellid tubeworm, determine extent of beds
7.2	Cape Jackson	Biogenic soft bottom habitat	Commercial fisher	Determine presence/absence biogenic habitats, boundary and quality of any biogenic habitats
9.2	Offshore Cape Campbell to Ward Beach	Macroalgal forest	Observations	Determine presence/absence biogenic habitats, boundary and quality of any biogenic habitats

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APPENDIX 1 - ECOLOGICAL ASSESSMENT CRITERIA

The following provides explanations for the criteria used in the present study to evaluate the ecological significance of sites. Each significant site can be a composite of biological attributes (i.e. habitat, species, community features).

Rankings for each criterion are: H = high, M = medium and L = low. They collectively contribute to the overall ranking, indicating the degree of significance. Any site for which all criteria rank L is not ecologically significant however, if any criteria rank M or H, the site is significant. Sites with an L ranking have not been discussed or included in the present report.

REPRESENTATIVENESS

The site is significant if it contains biological features (habitat, species, community) that represent a good example within the biogeographic area.

H: The site contains one of the best examples of its type known from the biogeographic area.

M: The site contains one of the better examples, but not the best, of its type known from the biogeographic area.

L: The site contains an example, but not one of the better or best, of its type known from the biogeographic area.

RARITY

The site is significant if it contains flora and fauna listed as nationally threatened nationally endangered, nationally vulnerable, or in serious decline. The site is also considered significant if it supports flora and fauna that are sparse, locally endemic, or at an extreme in their national distribution. The site is also significant if it supports a habitat or habitats or community assemblages that are rare nationally, regionally or within the biogeographic area.

H: The site contains a nationally important species, habitat or community; or the site contains several species, habitats, communities that are threatened within the biogeographic area.

M: The site contains one or a few species, habitats or communities that are threatened but not nationally, or contains rare or uncommon species, habitats or communities within the biogeographic area.

L: The site is not known to contain flora, fauna or communities that are threatened, rare or uncommon in the biogeographic area, region or nationally.

DIVERSITY AND PATTERN

The site is significant if it contains a range of species and habitat types notable for their complexity (i.e. diversity of species, habitat, community).

H: The site contains a high diversity of species, habitats or communities.

M: The site contains a moderate diversity of species, habitats or communities.

L: The site contains a low diversity of species, habitats or communities.

DISTINCTIVENESS/SPECIAL ECOLOGICAL CHARACTERISTICS

The site is significant if it contains ecological features (e.g. species, habitats, communities) that are outstanding or unique nationally, in the region, or in the biogeographic area.

H: The site contains any ecological feature that is unique nationally, in the region, or in the

biogeographic area, or it contains several features that are outstanding regionally or in the biogeographic area.

M: The site contains any ecological feature that is notable or unusual but not outstanding or unique nationally, in the region or in the biogeographic area.

L: The site contains no known ecological features that are outstanding or unique nationally, in the region or in the biogeographic area (i.e. ecological features are typical rather than distinctive).

SIZE

The site is significant if it is moderate to large in size relative or other habitats or communities of its type in the study area.

H: The site is large in size.

M: The site is moderate in size.

L: The site is small in size.

CONNECTIVITY

The site is significant if it is adjacent to, or close to other significant marine, freshwater or terrestrial areas.

H: The site is close to or well connected to a large significant area or several other significant areas.

M: The site is in the vicinity of other significant areas, but only partially connected to them or at an appreciable distance.

L: The site is isolated from other significant areas.

ADJACENT CATCHMENT MODIFICATION

Catchments that drainlarge tracts of land can lead to high sediment loading into adjacent marine areas. A site is significant if the adjacent catchment is >400 ha and clad in relatively mature native vegetative cover resulting in a long term stable environment with markedly reduced sediment and contaminant run-off compared to developed or modified catchments.

H: The site is dominated by a stable and relatively mature native vegetated catchment (>400 ha) that is legally protected.

M: The site is dominated by a stable and relatively mature native vegetated catchment (>400 ha) with partial or no legal protection.

L: The site is surrounded by a catchment (>400 ha) that is farmed, highly modified or has limited relatively mature vegetative cover.

Nikau Bay
(Rob Davidson)

APPENDIX 2 - MARINE ZONES AND THEIR HABITAT TYPES

The following section describes the broad marine zones and the range of habitat types found in these zones in Marlborough.

Habitats are described within the following marine zones: (A) terrestrial, (B) intertidal, (C) sublittoral zone, and (D) pelagic zone. For each zone the physical and biogenic formed habitats have been listed and described. Physical habitats are formed by abiotic features such as substratum (e.g. bedrock), by physical processes (e.g. light penetration, salinity) or are human related (e.g. mussel floats). Biogenic habitats have been formed by biotic processes and are most often a result of one plant or animal becoming so common that it creates habitat for other plants or animals (e.g. bryozoan "coral" reefs).

A. TERRESTRIAL (INCLUDES SPLASH ZONE)

Terrestrial areas included in the report include habitats that are used by marine species at some stage of their life cycle. Terrestrial areas are located above extreme high water and are not subjected to tidal inundation but may receive salt water spray. All marine birds breed and/or roost in terrestrial areas. The splash zone is located above the high water spring tidal level, but is strongly influenced by salt water spray and often supports marine vascular plants such as salt marsh and herb field species.

In this report terrestrial areas also include man-made structures that float on the surface, such as marine farm structures, and are utilised by sea birds. Jetties, wharfs and buildings are also included as terrestrial areas.

B. INTERTIDAL (LITTORAL ZONE)

The intertidal area is the area that is partially exposed and influenced by the tidal cycle. This is a very diverse zone where the substrate ranges from bedrock cliffs to mud estuaries. The intertidal areas included pools that are located in intertidal areas but are permanently covered by water.

Physical habitats

Bedrock: Intertidal bedrock formed as flat, sloping or vertical aspects. Common in areas exposed to the open ocean and headlands in sheltered areas.

Boulders and cobbles: Boulder and/or cobble dominated substratum formed as rocky beaches or intertidal boulder-banks.

Pebbles: Small substratum usually formed in a distinct zone due to sorting by wave action.

Broken shell and whole dead shell: Area dominated by dead broken and whole dead shell usually mixed with other substratum such as sand and pebbles.

Sand: Sand dominated substratum usually located in areas impacted by wave or strong tidal current action.

Silt and clay (mud): Dominated by fine substratum and located in very sheltered areas such as embayments and estuaries.

Pools: These are located in intertidal areas but are permanently covered by water. They may vary in depth from a few centimetres to 1 metre depth but are usually relatively small. They can occur in estuaries or on open rocky coasts.

Biogenic modifiers

Turfing algae: Substratum predominantly covered by turfing algae (e.g., articulated corallines and other red turfing algae).

Crustose coralline: Substratum dominated by crustose coralline algae. Usually found on rock substratum near low tidal levels.

Barnacle zone: Rocky areas with a high percentage cover of barnacles. Usually located on bedrock on exposed coastlines.

Eelgrass: High percentage cover formed by Zostera sp. Always growing on soft substratum and usually in sheltered estuarine locations or small embayments.

Herb field: High percentage cover of herb field. Usually located in high tidal areas in estuaries.

Salt marsh (rushes, sedges): High percentage cover of or sedges most often located in estuaries or sheltered embayments.

Tube worms mounds: Mound forming intertidal tube worm colonies usually located in estuaries or sheltered locations.

Pacific oyster beds: Dense beds of the introduced Asian oyster Crassostrea gigas. Usually found in estuarine areas or embayments where freshwater entered. Grow on dead shell or cobble substratum.

Shellfish beds: Dense beds of shellfish (e.g. cockle, pipi) usually located in estuaries where moderate to strong tidal flows occur.

Macroalgae bed: High percentage cover of macroalgal species usually found in sheltered embayments, estuaries, river mouths and freshwater seepages.

C. SUBLITTORAL ZONE

The sublittoral zone extends from low water spring to the edge of the continental shelf, well beyond the MDC territorial area. Only habitats within the MDC territorial area will, however, be presented in this report. This region includes benthic habitats and species that live in close association with them (e.g. invertebrates, reef fish).

Physical habitats

Bedrock: Bedrock formed as flat, sloping or vertical aspects. Can include caves and crevices. Common in areas exposed to the open ocean and headlands in sheltered areas.

Boulders and cobbles: Boulder and/or cobble dominated substratum formed as subtidal slopes and subtidal extensions of boulder-banks.

Pebbles: Small substratum usually formed in a distinct zone or depth. Often a subtidal extension of intertidal pebble beaches.

Broken shell and whole dead shell: Comprising dead broken and whole dead shell. Often found immediately below the cobble zone in the Marlborough Sounds.

Sand: Sand dominated substratum usually located in shallow areas and areas impacted by wave or strong tidal current action. Can form large subtidal banks in the outer Marlborough Sounds.

Silt and clay (mud): Dominated by fine sediments located in deep or very sheltered shallow areas. Represents the most widespread subtidal habitat in the sheltered Marlborough Sounds.

Channels: Channels represent areas where tidal flows are constricted by land masses.

Biogenic modifiers

***Carpophyllum maschalocarpum* forest:** Located at or near low water. High abundance (≥20 adult plants m^2). Often other brown algae species are present. Grazers including occur in low numbers.

***Ecklonia* forest:** Stands of mature *Ecklonia* that often form a canopy, occasional *C. flexuosum* plants may be present. Urchins at low numbers. Absent from sheltered areas.

***Carpophyllum flexuosum* forest:** High percentage cover of *C. flexuosum*. Mostly found in sheltered reef areas. Plants are large and usually associated with high levels of sediment.

Giant kelp forest (*Macrocystis pyrifera*): Giant kelp forests usually attach to bedrock, bounders or horse mussels. Usually anchored at depth >2 m, but lone plants have been observed at low water.

Mixed algal forest (high energy): Large brown algae associated with high energy shores. *Duvillaea* spp. often present at low water with combinations of *Lessonia variegata* (0-10m) and *Marginariella boryana* (0 and 20 m).

Mixed algae (moderate energy): Mixture of large brown algal species. No clear dominant species.

Red foliose algae: Substratum predominantly covered (>40%) by red foliose algae such as *Adamsiella chauvinii*. Some red foliose species of algae can also grow on also rock.

Turfing algae: Substratum predominantly covered by turfing algae (e.g., articulated corallines and other red turfing algae, >30% cover). Low numbers of large brown algae and urchins may be present.

***Caulerpa* mat:** Dense mats of the green algae, usually *Caulerpa browni, hypnoides* and *articulata*. Urchins and large brown algae are rare.

Crustose coralline algae dominated urchin barren: Very low numbers of large brown algae present, substratum typically dominated by crustose coralline algae (paint). Usually associated with grazing activity of kina (>2 exposed urchins m^2), which leaves the substratum relatively devoid of macroalgae.

Encrusting invertebrates: Usually vertical walls or overhangs. Substratum predominantly covered by community of encrusting ascidians, tubeworms, sponges, hydroids, and bryozoans. Large brown algae rare.

Sponge gardens: (>10m depth): Sponges are visually dominant, high cover of sediment. Usually occurs near the reef-sand interface or in the heads of particular bays in the Marlborough Sounds.

Horse mussel bed: Areas with high densities of horse mussels forming a bed or zone (>4 m^2).

Bryozoan garden: Areas with high current flow with high percentage cover of bryozoan colonies.

Tubeworm bed: Areas dominated by soft sediment building tubeworms or areas colonised mounds of calcified tubeworms.

Rhodoliths: Free living (unattached) growths of calcareous algae forming a distinct zone or bed on soft sediments.

Hydroid beds: Rocky substrata colonised by high numbers of hydroid trees.

D. PELAGIC (OCEANIC ZONES)

The pelagic zone is the area of ocean that is not close to the bottom or near the shore.

Physical habitats

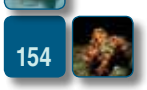
Photic area: Water column where light is sufficiently strong to support photosynthesis (<200 m). Primary production by phytoplankton.

High current: Area where strong tidal currents regularly occur.

Upwelling: Area where deep water is brought closer to the surface.

Biogenic modifiers

Drift macroalgae: Floating macroalgae originating from rocky coasts provides habitat for a variety of small fish. Larger fish such as kingfish are attracted to these floating rafts. Juvenile grouper are thought to associate with these drifting masses of macroalgae.



GLOSSARY - COMMON TO SCIENTIFIC

COMMON NAME	SCIENTIFIC NAME	REFERENCES
Agar weed	*Pterocladia lucida*	1
Ambush star	*Stegnaster inflatus*	
Anchovy	*Engraulis australis*	140, 297
Arabic volute	*Alcithoe arabica*	306
Arc shell	*Barbatia novaezealandiae*	306
Banded dotterel	*Charadrius bicinctus*	182
Banded rail	*Gallirallus philippensis*	125
Banded wrasse	*Notolabrus fucicola*	140, 297
Barnacles	*Megabalanus* sp	
Barracouta	*Thyrsites atun*	140, 297
Basking shark	*Cetorhinus maximus*	140, 143
Batchelor's button	*Cotula coronopifolia*	
Bivalve	*Cuspidaria wellmani*	306
Blackfoot Paua	Haliotis iris	191, 261, 262, 263, 279, 280, 303, 304, 305, 306, 316, 326, 331, 337
Black goby	*Gobiopsis atrata*	297
Black lamp shell	*Notosaria nigricans*	104, 227, 230
Black sea slug	*Scutus breviculus*	
Black stilt	*Himantopus novaezelandiae*	182
Black swan	*Cygnus atratus*	182
Black-backed gull	*Larus dominicanus*	182
Black-fronted tern	*Chlidonias albostriata*	182
Blister worm	*Polydora armata*	
Blue cod	*Parapercis colias*	49, 50, 51, 64, 72, 80, 197, 240, 309
Blue dot triplefin	*Notoclinops caerulepunctus*	140, 297
Blue mackerel	*Scomber australasicus*	297
Blue maomao	*Scorpis aequipinnis*	140, 297
Blue moki	*Latridopsis ciliaris*	140, 297
Blue mussel	*Mytilus galloprovincialis*	
Blue shark	*Prionace glauca*	297
Blue-eyed triplefin	*Notoclinops segmentatus*	140, 297
Bluenose	*Hyperoglyhe antarctica*	140, 297
Bottlenose dolphin	*Tursiops truncatus*	68, 233, 234, 236, 237, 264, 265
Brill	*Colistium guntheri*	
Broadnose sevengill shark	*Notorhynchus cepedianus*	297
Broccoli weed	*Xiphophora chondrophylla*	1
Bronze whaler	*Carcharhinus brachyurus*	140
Brown halo weed	*Halopteris* sp.	1
Brown tongue weed	*Glossophora. kunthii*	1
Buck's horn plantain	*Plantago coronopus*	
Bull kelp	*Durvillea antarctica*	1
Burrowing anemone	*Cerianthus* sp	53, 124, 195
Butterfish	*Odax pullus*	140, 297
Butterfly chiton	*Cryptoconchus porosus*	306
Butterfly perch	*Caesioperca lepidoptera*	140, 297

COMMON NAME	SCIENTIFIC NAME	REFERENCES
Carpet shark	*Cephaloscyllium isabella*	140
Caspian tern	*Hydroprgne caspia*	
Catseye	*Turbo smaragdus*	306
Circular saw shell	*Astrea heliotropium*	306
Club tunicate	*Styela clava*	
Cockle	*Austrovenus stutchburyi*	306
Colonial cup coral	*Culicia rubeola*	
Common anemone	*Actinothoe albocincta*	
Common dolphin	*Delphinus delphis*	286, 358, 359, 360
Common hermit crab	*Pagurus novizelandiae*	
Common jellyfish	*Aurelia aurita*	
Common roughy	*Paratrachichthys trailli*	140, 297
Common sole	*Peltorhamphus*	297
Common triplefin	*Forsterygion. lapillum*	140, 297
Common warehou	*Seriolella brama*	297
Conger eel	*Conger verrauxi*	140, 297
Cook's turban	*Cookia sulcata*	306
Coralline algae	*Arthrocardia corymbosa*	
Coralline algae	*Corallina officinalis*	1, 20, 133, 283
Cord grass	*Spartina anglica*	
Crested flounder	*Lophonectes gallus*	297
Cushion star	*Patiriella regularis*	
Dark brown sponge	*Polymastia fusca*	
Dark ghost shark	*Hydrolagus novaezelandiae*	140, 297
Deepwater tuatua	*Pahpies donacina*	306
Dividing star	*Allostichaster insignis*	
Dog cockle	*Tucetona laticostata*	306
Dredge oyster	*Ostrea chilensis*	
Duck	*Anas* sp	182
Dusky dolphin	*Lagenorhynchus obscurus*	24, 25, 57, 249, 250, 251, 373, 374, 375, 390, 391
Dwarf scorpion fish	*Scorpaena papillosus*	297
Eagle ray	*Myliobatis tenuicaudatus*	140, 297
Eastern bar-tailed godwit	*Limosa lapponica baueri*	
Electric ray	*Torpedo fairchildi*	297
Elephant fish	*Callorhinchus milii*	142
Eleven-armed star	*Coscinasterias muricata*	
Elongated mactra	*Longimactra elongata*	306
Fairy prion	*Pachyptila turtur*	267, 382
False oyster	*Cleidothaerus albidus*	306
Fan shell	*Chlamys dieffenbachi*	306
Fan worm	*Branchiomma*	
Fern bird	*Bowdleria punctatus*	182
Filter feeding hermit crab	*Paguristes setosus*	
Fine *Dosinia*	*Dosinia subrosea*	306
Finger sponge	*Callyspongia* spp.	
Flesh-footed shearwater	*Puffinus carneipes*	182
Flexible flapjack	*Carpophyllum flexuosum*	1
Fluttering shearwater	*Puffinus gavia*	30, 182
Frilled venus shell	*Bassina yatei*	306

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COMMON NAME	SCIENTIFIC NAME	REFERENCES
Frost fish	*Lepidopus caudatus*	297
Gannet	*Morus serrator*	42, 389
Garfish	*Hyporhamphus ihi*	140, 297
Gemfish	*Rexea solandri*	297
Giant kelp	*Macrocystis pyrifera*	1, 43, 138, 148, 163, 176, 270, 271, 327, 368
Giant lampshell	*Neothyrus lenticularis*	104, 228, 229, 230, 281
Giant sponge chiton	*Notoplax latilamina*	
Giant stargazer	*Kathetosoma giganteum*	140, 297
Girdled wrasse	*Notolbrus cinctus*	140, 297
Glasswort	*Sarcocornia quinqueflora*	
Goatfish	*Upeneichthys lineatus*	140, 297
Goose barnacle	*Lepsa* sp	
Great white shark	*Carcharodon carcharias*	140
Green sea lettuce	*Ulva* spp	1
Green topshell	*Trochus viridus*	306
Greenback flounder	*Rhombosolea tapirina*	297
Green-lipped mussel	*Perna canaliculus*	153
Groper	*Polyprion oxygenios*	198, 315
Gummy weed	*Splachnidium rugosum*	1
Hagfish	*Eptatretus cirrhatu*	140, 297
Hake	*Merluccius australis*	297
Half crab	*Petrolisthes novaezelandiae*	
Hapuku	*Polyprion oxygenios*	198, 315
Heart urchin	*Echinocardium cordatum*	
Hector's dolphin	*Cephalorhynchus hectori*	29, 106, 256, 288, 349, 361
Hermit crab	*Pagurus traversi*	
Hoki	*Marcruronus novaezelandiae*	297
Holothurian	*Pentadactyla longidentis*	
Horse mussel	*Atrina zelandica*	4, 15, 75, 126, 166, 184, 192
Humpback whale	*Megaptera novaeangliae*	60, 150, 158
Hydroids	*Obelia* sp	
Jack mackerel	*Trachurus* spp	297
Japanese kelp	*Undaria pinnatifida*	1
Jewel anemone	*Corynactis haddoni*	
Jewel star	*Pentagonaster pulchellus*	
John dory	*Zeus japonicus*	140, 297
Jointed wire rush	*Apodasmia similis*	
Kahawai	*Arripis trutta*	140
Kina	*Evechinus chloroticus*	302, 321, 329
King shag	*Leucocarbo carunculatus*	219, 282, 339, 340
Kingfish	*Seriola lalandi*	140, 297
Knobbed whelk	*Penion sulcatus*	
Krill	*Munida gregaria*	
Lace coral	*Galeopsis porcellanicus*	
Lampshell	*Terebratella haurakiensis*	140, 228, 229, 230
Lampshell	*Terebratella sanguinea*	140, 228, 229, 230
Large barnacle	*Epopella plicata*	
Large trough shell	*Mactra murchisoni*	306
Leatherjacket	*Parika scaber*	140, 297

COMMON NAME	SCIENTIFIC NAME	REFERENCES
Lemon sole	*Pelotretis flavilatus*	297
Ling	*Genypterus blacodes*	140, 297
Little penguin	*Eudyptula minor*	76, 254
Longfinned triplefin	*Ruanoho decemdigitatus*	140, 297
Mako shark	*Isurus oxyrinchus*	297
Marblefish	*Aplodactylus arctidens*	140
Marsh crake	*Porzana pusilla*	125, 182
Marsh ribbonwood	*Plagianthus divaricatus*	
Morning star shell	*Tawera spissa*	306
Mottled brotula	*Bidenichthys consobrinus*	
Mottled triplefin	*Forsterygion malcolmi*	140, 297
Mud worm	*Polydora websteri*	
Narrow Flapjack	*Carpophyllum maschalocarpum*	1
Native musk	*Mimulus repens*	33
Neptune's necklace	*Hormosira banksii*	1
Nesting mussel	*Modiolarca impacta*	
New Zealand dotterel	*Charadrius obscurus*	182
New Zealand fur seal	*Arctocephalus forsteri*	16, 218, 255, 366, 367, 388
New Zealand lancelet	*Epigonichthys hectori*	297
Noble chiton	*Eudoxochiton nobilis*	306
North Pacific sea star	*Asterias amurensis*	
Northern diving petrel	*Pelecanoides urinatrix urinatrix*	370
Northern spiny dogfish	*Squalus* sp.	297
Nudibranch	*Jason mirabilis*	
Nut shell	*Nucula hartvigiana*	
Oak leaf seaweed	*Landsburgia quercifolia*	1
Oblique swimming triplefin	*Obliquichthys maryannae*	140, 297
Octopus	*Pinnoctopus cordiformis*	
Olive shell	*Amalda mucronata*	306
Opal fish	*Hemerocoetes*	140
Opal topshell	*Cantharidus opalus*	
Orange broach star	*Asterodon dilatatus*	306
Orange cup sponge	*Stellatta crater*	
Orange finger sponge	*Raspalia* sp	
Orange hermit crab	*Diacanthurus spinulimanus*	
Orca, killer whale	*Orcinus orca*	134, 376, 277, 378
Pacific oyster	*Crassostrea gigas*	170
Packhorse rock lobster	*Sagmariasus verreauxi*	
Paddle weed	*Ecklonia radiata*	1
Parchment worm	*Chaetopterus* sp	
Pied stilt	*Himantopus himantopus*	182
Pilchard	*Sardinops neopilchardus*	20, 297
Pin-cushion star	*Eurygonias hyalacanthus*	
Pink golfball sponge	*Tethya ingalli*	
Pink sunset shell	*Gari lineolata*	306
Pink urchin	*Pseudechinus albocinctus*	
Pipi	*Paphies australis*	306
Plankton hermit crab	*Paguristes setosus*	
Porbeagle shark	*Lamna nasus*	
Porcupine fish	*Allomycterus jaculiferus*	

COMMON NAME	SCIENTIFIC NAME	REFERENCES
Purple cockle	*Venericardia purpurata*	306
Purple sunset shell	*Gari stangeri*	
Rat tail	*Coelorhinchus* sp.	297
Red algae	*Adamsiella chauvinii*	1, 214, 300
Red algae	*Rhodymenia linearis*	1
Red cod	*Pseudophycis bacchus*	140, 297
Red encrusting bryosoan	*Watersipora subtorquata*	
Red gurnard	*Chelidonichthys kum*	140
Red moki	*Cheilodactylus spectabilis*	140
Red rock crab	*Plagusia chabrus*	
Red-banded perch	*Hypoplectrodes huntii*	140, 297
Red-billed gull	*Larus novaehollandiae scopulinus*	169, 266
Red-necked phalarope	*Phalaropus lobatus*	
Red-necked stint	*Calidris ruficollis*	182
Reef heron	*Egretta sacra sacra*	123, 182
Remuremu	*Selliera radicans*	
Ribaldo	*Mora moro*	297
Ribbed mussel	*Aulacomya ater maoriana*	306
Rig	*Mustelus lenticulatus*	297
Ringed *Dosinia*	*Dosinia anus*	306
Robust triplefin	*Grahamina gymnota*	297
Rock cod	*Lotella rhacinus*	140, 297
Rock lobster	*Jasus edwardsii*	6, 7, 8, 9, 10, 11, 12, 13, 14, 34,35,36, 37, 39, 59, 145, 146, 208
Rock oyster	*Saccostrea cucllata*	
Rough skate	*Zearaja nasutus*	141, 144
Royal spoonbill	*Platalea regia*	182
Sabellid polychaete	*Bispira bispira*	
Saddle seasquirt	*CnemiDOCarpa bicornuata*	
Salmon	*Oncorhynchus tshawytscha*	
Sand dahlia	*Isocradactis magna*	
Sand divers	*Limnichthys* sp	
Sand dollar	*Fellaster zelandiae*	
Sand flounder	*Rhombosolea plebia*	140, 297
Sand hopper	*Corophium acutum*	
Sand-eel	*Gonorhynchus gonorhynchus*	297
Scallop	*Pecten novaezelandiae*	58, 188, 189, 206, 274, 348, 357, 363, 364, 386, 387
Scaly gurnard	*Lepidotriglia brachyoptera*	140, 297
Scaly headed triplefin	*Karalepis stewarti*	297
Scarlet wrasse	*Pseudolabrus miles*	140, 297
School shark	*Galeorhinus galeus*	140
Scimitar mactra	*Zenatia acinaces*	306
Scrambling pohuehue	*Muehlenbeckia complexa*	
Sea cucumber	*Stichopus mollis*	
Sea grape	*Caulerpa geminata*	1
Sea grass, eel grass	*Zostera muelleri*	
Sea pen	*Virgularia gracillima*	
Sea perch	*Helicolenus percoides*	140

COMMON NAME	SCIENTIFIC NAME	REFERENCES
Sea primrose	*Samolus repens*	
Sea rimu	*Caulerpa brownii*	1
Sea rush	*Juncus kraussii var. australiensis*	
Sea sedge	*Carex litorosa*	
Sea star	*Stichaster australis*	
Sea tulip	*Pyura pachydermatina*	
Seahorse	*Hippocampus abdominalis*	140, 297
Separation Point coral	*Celleporaria agglutinans*	
Seven-armed star	*Astrostole scabra*	
Shell boring worm	*Polydora hoplura*	
Ship rat	*Rattus rattus*	
Ship worm	*Lyrodus pedicellatus*	
Short-jaw kokopu	*Galaxias postvectis*	
Short-tailed stingray	*Dasyatis brevicaudata*	140
Silky *Dosinia*	*Dosinia lambata*	306
Silver warehou	*Seriolella punctata*	297
Slaty sponge	*Ancorina alata*	
Slender clubrush	*Isolepis cernua*	
Slender roughy	*Optivus elongatus*	140, 297
Slender sea lettuce	*Ulva laetevirens*	1
Slender zigzag weed	*Cystophora retroflexa*	1
Small dog cockle	*Glycymeris modestus*	306
Smelt	*Retropinna retropinna*	
Smooth pipefish	*Stigmatopora macropterygia*	297
Smooth skate	*Dipturus innominata*	140, 141, 144
Snake star	*Ophiopsammus maculata*	
Snake star	*Amphiura correcta*	
Snake star	*Amphiura rosea*	
Snapper	*Pagrus auratus*	140, 299, 372
Sooty shearwater	*Puffinus griseus*	73, 152, 239
South Island pied oystercatcher	*Haematopus finschi*	182
Southern bastard red cod	*Pseudophycis barbatus*	140, 297
Southern pigfish	*Congiopodus leucopaecilus*	140, 297
Southern right whale	*Eubalaena australis*	294
Spartina	*Spartina anglica*	
Speckled anemone	*Oulactis muscosa*	
Speckled sole	*Peltorhamphus latus*	297
Speckled whelk	*Cominella maculosa*	
Spectacled triplefin	*Ruanoho whero*	140, 297
Sperm whale	*Physeter macrocephalus*	16, 162, 313, 314
Spinifex	*Spinifex sericeus*	
Sponge	*Aaptos aaptos*	
Sponge Crab	*Dromia wilsoni*	
Spoon worm	*Urechis novaezelandiae*	
Spotted shag	*Strictocarbo punctatus punctatus*	117
Spotted spiny dogfish	*Squalus acanthias*	297
Spotted stargazer	*Genyagnus monopterygius*	297
Spotted topshell	*Calliostoma punctulata*	306
Spotty	*Notolabrus celidotus*	52, 140, 297
Sprat	*Sprattus* spp	21

COMMON NAME	SCIENTIFIC NAME	REFERENCES
Squat lobster	*Galatheidae*	
Starry limpet	*Cellana stellifera*	306
Strap kelp	*Lessonia variegata*	1
Strawberry cockle	*Nemocardium pulchellum*	
Sulpher sponge	*Aplysilla sulphurea*	
Swamp maire	*Syzygium maire*	
Sweep	*Scorpis lineolatu*	140, 297
Tarakihi	*Nemadactylus macropterus*	140, 381
Telescope fish	*Mendosoma lineatum*	297
Thornfish	*Bovichtus variegatus*	140
Thresher shark	*Alopias vulpinus*	140
Tiger topshell	*Calliostoma tigris*	306
Tiny lampshell	*Waltonia inconspicua*	104
Top shell	*Trochus* sp	306
Trevally	*Pseudocaranx denetx*	140, 297
Triangle shell	*Spisula aequilater*	
Trough Shell	*Mactra discors*	306
Trumpeter	*Latris lineata*	140, 297
Tuatua	*Paphies subtriangulata*	306
Tubeworm	*Galeolaria hystrix*	351
Tuneworm	*Owenia petersenae*	272, 273
Turret shell	*Maoricolpus roseus*	306
Two-saddle rattail	*Coelorhinchus biclinozonalis*	297
Urchin	*Apatopygus recens*	
Variable oystercatcher	*Haematopus unicolor*	182
Variable triplefin	*Forsterygion varium*	140, 297
Virgin paua	*Haliotis virginea*	306
Wandering anemone	*Phlyctenactis tuberculata*	
Warty nudibranch	*Archidoris wellingtonensis*	
Waxy seasquirt	*Asterocarpa cerea*	
Wedge shell	*Tellina liliana*	306
Weka	*Gallirallus australis*	
White cats eye	*Turbo granosus*	306
White heron	*Egretta alba*	182
White-fronted tern	*Sterna striata*	338, 341
Window oyster	*Monia zelandica*	
Witch	*Arnoglossus scapha*	297
Wrybill	*Anarhynchus frontalis*	182
Yaldwin's triplefin	*Notoclinops yaldwini*	140, 297
Yellow boring sponge	*Clione cellata*	
Yellowbelly flounder	*Rhombosolea leporina*	32
Yellow-black triplefin	*Forsterygion flavonigrum*	140, 297
Yellow-eyed mullet	*Aldrichetta forsteri*	140, 297
Yellow-foot paua	*Haliotis australis*	306
Zigzag sausage weed	*Cystophora torulosa*	1
Zoanthids	*Parazoanthus* sp	

GLOSSARY - SCIENTIFIC TO COMMON

SCIENTIFIC NAME	COMMON NAME	REFERENCES
Aaptos aaptos	Sponge	
Actinothoe albocincta	Common anemone	
Adamsiella chauvinii	Red algae	1, 214, 300
Aeodes nitidissima		
Alcithoe arabica	Arabic volute	306
Aldrichetta forsteri	Yellow-eyed mullet	140
Alexandrinum minutum		
Allomycterus jaculiferus	Porcupine fish	
Allostichaster insignis	Dividing star	
Alopias vulpinus	Thresher shark	140
Amalda mucronata	Olive shell	306
Amphiura correcta	Snakestar	
Amphiura rosea	Snakestar	
Anarhynchus frontalis	Wrybill	182
Anas sp.	Duck	182
Ancorina alata	Slaty sponge	
Anguinella palmate		
Apatopygus recens	Urchin	
Apium prostratum		
Aplidium phortax		
Aplodactylus arctidens	Marblefish	140
Aplysilla sulphurea	Sulphur sponge	
Apodasma similis	Jointed wire rush	
Archidoris wellingtonensis	Warty nudibranch	
Arctocephalus forsteri	New Zealand fur seal	16, 218, 255, 366, 367, 388
Arnoglossus scapha	Witch	297
Arripis trutta	Kahawai	140
Arthrocardia corymbosa	Coralline algae	
Asparagopsis armata		1
Asperococcus bullosus		
Asterias amurensis	North Pacific sea star	
Asterocarpa cerea	Waxy seasquirt	
Asterodon dilatatus	Orange broach star	306
Astrea heliotropium	Circular saw shell	306
Astrostole scabra	Seven-armed star	
Atrina zelandica	Horse mussel	4, 15, 75, 126, 166, 184, 192
Aulacomya ater maoriana	Ribbed mussel	306
Aurelia aurita	Common jellyfish	
Austrovenus stutchburyi	Cockle	306
Bagula cuspidata		
Barbatia novaezealandiae	Arc shell	306
Bassina yatei	Frilled venus shell	306
Bidenichthys consobrinus	Mottled brotula	
Bispira bispira	Sabellid polychaete	
Botryllus schlosseri		
Bovichtus variegatus	Thornfish	140
Bowdleria punctatus	Fern bird	182

SCIENTIFIC NAME	COMMON NAME	REFERENCES
Bowerbankia imbricata		
Branchiomma	Fan worm	
Bugula flabellata		
Bugula neritina		
Bugula sp.	Arborescent bryozoan	
Bugula stolonifera		
Caesioperca lepidoptera	Butterfly perch	140, 297
Calidris ruficollis	Red-necked stint	182
Calliostoma punctulata	Spotted topshell	306
Calliostoma tigris	Tiger topshell	306
Callorhinchus milii	Elephant fish	115, 142
Callothamnion consanguineum		
Callyspongia spp.	Finger sponge	
Cantharidus opalus	Opal topshell	306
Carcharhinus brachyurus	Bronze whaler	140
Carcharodon carcharias	Great white shark	140
Carex litorosa	Sea sedge	
Carpomitra costata		
Carpophyllum flexuosum	Flexible flapjack	1
Carpophyllum maschalocarpum	Narrow flapjack	1
Caulerpa articulata		
Caulerpa brownii	Sea rimu	1
Caulerpa flexilis		1
Caulerpa geminata	Sea grape	
Cellana stellifera	Starry limpet	306
Celleporaria agglutinans	Separation Point coral	
Cephalorhynchus hectori	Hector's dolphin	29, 106, 256, 288, 349, 361
Cephaloscyllium isabella	Carpet shark	140
Cerianthus sp.	Burrowing anemone	53, 124, 195
Cetorhinus maximus	Basking shark	143
Chaetomorpha darwini		
Chaetopterus sp	Parchment worm	
Champia novaezelandiae		1
Charadries bicinctus	Banded dotterel	182
Charadrius obscurus	New Zealand dotterel	182
Cheilodactylus spectabilis	Red moki	140
Chelidonichthys kum	Red gurnard	140
Chladhymenia oblongifolia		1
Chlamys dieffenbachi	Fan shell	306
Chlidonias albostriata	Black-fronted tern	182
Chnoospora minima		1, 285
Cladophoropsis herpestica		
Cleidothaerus albidus	False oyster	306
Clione cellata	Yellow boring sponge	
CnemiDOCarpa bicornuata	Saddle seasquirt	
Codium adherens		1
Codium fragile		1
Coelorhinchus biclinozonalis	Two-saddle rattail	297
Coelorhinchus sp.	Rat tail	297
Colistium guntheri	Brill	

SCIENTIFIC NAME	COMMON NAME	REFERENCES
Colpomenia sp.		
Cominella maculosa	Speckled whelk	
Conger verrauxi	Conger eel	140, 297
Congiopodus leucopaecilus	Southern pigfish	140, 297
Conopeum seurati		
Cookia sulcata	Cook's turban	306
Corallina officinalis	Coralline algae	1, 20, 133, 283
Corbula zelandica		
Corella eumyota		
Corophium acutum	Sand hopper	
Corynactis haddoni	Jewel anemone	
Coscinasterias muricata	Eleven-armed star	
Cotula coronopifolia	Batchelor's button	
Crassostrea gigas	Pacific oyster	170
Crella incrustans		
Cryptoconchus porosus	Butterfly chiton	306
Cryptosula pallasiana		
Culicia rubeola	Colonial cup coral	
Cuspidaria wellmani	Bivalve	306
Cutleria multifida		
Cygnus atratus	Black swan	182
Cystophora retroflexa	Slender zigzag weed	1
Cystophora scalaris		1
Cystophora spp.		1
Cystophora torulosa	Zigzag sausage weed	1
Dasyatis brevicaudata	Short-tailed stingray	140
Delphinus delphis	Common dolphin	286, 358, 359, 360
Diacanthurus spinulimanus	Orange hermit crab	
Didemnum candidum		
Didemnum vexillum		
Dinophysis acuminata		
Dinophysis acuminata		
Dinophysis acuta		
Dipturus innominata	Smooth skate	140, 141, 144
Dosina zelandica		
Dosinia anus	Ringed Dosinia	306
Dosinia lambata	Silky Dosinia	306
Dosinia subrosea	Fine Dosinia	306
Dromia wilsoni	Sponge crab	
Durvillea antarctica	Bull kelp	1
Echinocardium cordatum	Heart urchin	
Ecklonia radiata	Paddle weed	1
Egretta alba	White heron	182
Egretta sacra sacra	Reef heron	123, 182
Elphidium vellai		
Engraulis australis	Anchovy	140, 297
Ennucula strangei		
Enteromorpha sp.		1
Epiactus sp.		
Epigonichthys hectori	New Zealand lancelet	297

SCIENTIFIC NAME	COMMON NAME	REFERENCES
Epopella plicata	Large barnacle	
Eptatretus cirrhatu	Hagfish	140, 297
Eubalaena australis	Southern right whale	294
Eudoxochiton nobilis	Noble chiton	306
Eudyptula minor	Little penguin	76, 254
Euptilota formosissima		
Eurygonias hyalacanthus	Pin-cushion star	
Evechinus chloroticus	Kina	302, 321, 329
Fellaster zelandiae	Sand dollar	
Forsterygion flavonigrum	Yellow-black triplefin	140, 297
Forsterygion malcolmi	Mottled triplefin	140, 297
Forsterygion varium	Variable triplefin	140, 297
Forsterygion lapillum	Common triplefin	140, 297
Galatheidae	Squat lobster	
Galaxias postvectis	Short-jaw kokopu	
Galeolaria hystrix	Tubeworm	351
Galeolaria spirorbid		
Galeopsis porcellanicus	Lace coral	
Galeorhinus galeus	School shark	140
Gallirallus australis	Weka	
Gallirallus philippensis	Banded rail	125
Gari lineolata	Pink sunset shell	306
Gari stangeri	Purple sunset shell	306
Genyagnus monopterygius	Spotted stargazer	297
Genypterus blacodes	Ling	140, 297
Giffithsia sp.		
Glossophora kunthii	Brown tongue weed	1
Glycymeris modestus	Small dog cockle	306
Gobiopsis atrata	Black goby	297
Gonorhynchus gonorhynchus	Sand-eel	297
Gracilaria sp.	Red algae	1
Grahamina gymnota	Robust triplefin	297
Gymnodinium catenatum		
Haematopus finschi	South Island pied oystercatcher	182
Haematopus unicolor	Variable oystercatcher	182
Haliotis australis	Yellow-foot paua	306
Haliotis iris	Black-foot paua	191, 261, 262, 263, 279, 280, 303, 304, 305, 316, 326, 331, 337
Haliotis virginea	Virgin paua	306
Halopteris sp.	Brown halo weed	1
Helicolenus percoides	Sea perch	140
Hemerocoetes	Opal fish	140
Himantopus himantopus	Pied stilt	182
Himantopus novaezelandiae	Black stilt	182
Hippocampus abdominalis	Seahorse	140, 297
Hormosira banksii	Neptune's necklace	1
Hydroclathrus clathratu		
Hydrolagus novaezelandiae	Dark ghost shark	140, 297
Hydroprogne caspia	Caspian tern	

SCIENTIFIC NAME	COMMON NAME	REFERENCES
Hyperoglyhe antarctica	Bluenose	140, 297
Hypoplectrodes huntii	Red-banded perch	140, 297
Hyporhamphus ihi	Garfish	140, 297
Iophon minor	Sponge	
Isocradactis magna	Sand dahlia	
Isolepis cernua	Slender clubrush	
Isurus oxyrinchus	Mako shark	297
Jason mirabilis	Nudibranch	
Jasus edwardsii	Rock lobster	6, 7, 8, 9, 10, 11, 12, 13, 14, 34, 35, 36, 37, 39, 59, 145, 146, 208
Juncus kraussii var. australiensis	Sea rush	
Karalepis stewarti	Scaly headed triplefin	297
Kathetosoma giganteum	Giant stargazer	140, 297
Lagenorhynchus obscurus	Dusky dolphin	24, 25, 57, 249, 250, 251, 373, 374, 375, 390, 391
Lamna nasus	Porbeagle shark	
Landsburgia quercifolia	Oak leaf seaweed	1
Larus dominicanus	Black-backed gull	
Larus novaehollandiae scopulinus	Red-billed gull	169, 266
Latridopsis ciliaris	Blue moki	140, 297
Latris lineata	Trumpeter	140, 297
Latrunculia brevis	Sponge	
Lepidopus caudatus	Frost fish	297
Lepidotriglia brachyoptera	Scaly gurnard	140, 297
Lepsa sp.	Goose barnacle	
Lessonia variegata	Strap kelp	1
Leucocarbo carunculatus	King shag	219, 282, 339, 340
Limnichthys sp.	Sand divers	
Limosa lapponica baueri	Eastern bar-tailed godwit	
Liothyrella neozelanica		
Longimactra elongata	Elongated *Mactra*	306
Lophonectes gallus	Crested flounder	297
Lotella rhacinus	Rock cod	140, 297
Lyrodus pedicellatus	Ship worm	
Macrocystis pyrifera	Giant kelp	1, 43, 138, 148, 163, 176, 270, 271, 327, 368
Mactra discors	Trough shell	306
Mactra murchisoni	Large trough shell	306
Maoricolpus roseus	Turret shell	306
Marcruronus novaezelandiae	Hoki	297
Marginariella boryana		1
Marginariella spp.		1
Marginariella urvilliana		1
Megabalanus sp.	Barnacles	
Megaptera novaeangliae	Humpback whale	60, 150,1 58
Mendosoma lineatum	Telescope fish	297
Merluccius australis	Hake	297
Mesodinium rubrum		
Metridium sp.		

SCIENTIFIC NAME	COMMON NAME	REFERENCES
Mimulus repens	Native musk	33
Modiolarca impacta	Nesting mussel	
Monia zelandica	Window oyster	
Mora moro	Ribaldo	297
Morus serrator	Gannet	42, 389
Muehlenbeckia complexa	Scrambling pohuehue	
Munida gregaria	Krill	
Mustelus lenticulatus	Rig	297
Myliobatis tenuicaudatus	Eagle ray	140, 297
Mytilus galloprovincialis	Blue mussel	
Neilo australis		
Nemadactylus macropterus	Tarakihi	140, 381
Nemocardium pulchellum	Strawberry cockle	230
Neothyrus lenticularis	Giant lampshell	104, 228, 229, 230, 281
Notoclinops caerulepunctus	Blue dot triplefin	140, 297
Notoclinops segmentatus	Blue-eyed triplefin	140, 297
Notoclinops yaldwini	Yaldwin's triplefin	140, 297
Notolabrus celidotus	Spotty	52, 140, 297
Notolabrus fucicola	Banded wrasse	140, 297
Notolbrus cinctus	Girdled wrasse	140, 297
Notoplax latilamina	Giant sponge chiton	
Notorhynchus cepedianus	Broadnose sevengill shark	297
Notosaria nigricans	Black lampshell	104, 227, 230
Nucula hartvigiana	Nut shell	
Obelia sp.	Hydroids	
Obliquichthys maryannae	Oblique swimming triplefin	140, 297
Odax pullus	Butterfish	140, 297
Oncorhynchus tshawytscha	Salmon	
Ophiocoma bollonsi		
Ophiocoma novaezelandiae		
Ophiopsammus maculata	Snake star	
Optivus elongatus	Slender roughy	140, 297
Orcinus orca	Orca, killer whale	134, 376, 277, 378
Orthoscuticella sp.	Arborescent bryozoan	
Ostrea chilensis	Dredge oyster	
Oulactis muscosa	Speckled anemone	
Owenia petersenae	Tubeworm	272, 273
Pachyptila turtur	Fairy prion	267, 382
Pagrus auratus	Snapper	140, 297, 372
Paguristes setosus	Filter feeding hermit crab	
Paguristes setosus	Plankton hermit crab	
Pagurus novizelandiae	Common hermit crab	
Pagurus traversi	Hermit crab	
Pahpies donacina	Deepwater tuatua	306
Paphies australis	Pipi	306
Paphies subtriangulata	Tuatua	306
Parapercis colias	Blue cod	49, 50, 51, 64, 72, 80, 197, 240, 309
Paratrachichthys trailli	Common roughy	140, 297
Parazoanthus sp.	Zoanthids	

SCIENTIFIC NAME	COMMON NAME	REFERENCES
Parika scaber	Leatherjacket	140, 297
Parkermavella sp.		
Patiriella regularis	Cushion star	
Pecten novaezelandiae	Scallop	58, 188, 189, 206, 274, 348, 357, 363, 364, 386, 387
Pelecanoides urinatrix urinatrix	Northern diving petrel	370
Pelotretis flavilatus	Lemon sole	297
Peltorhamphus latus	Speckled sole	297
Peltorhamphus	Common sole	297
Penion sulcatus	Knobbed whelk	
Pentadactyla longidentis	Holothurian	
Pentagonaster pulchellus	Jewel star	
Perna canaliculus	Green-lipped mussel	153
Petrolisthes novaezelandiae	Half crab	
Phalaropus lobatus	Red-necked phalarope	
Phlyctenactis tuberculata	Wandering anemone	
Phyllochaetopterus sociali		
Physeter macrocephalus	Sperm whale	16, 162, 313, 314
Pinnoctopus cordiformis	Octopus	
Plagianthus divaricatus	Marsh ribbonwood	
Plagusia chabrus	Red rock crab	
Plantago coronopus	Buck's horn plantain	
Platalea regia	Royal spoonbill	182
Plocamium cartlagineum		
Plocamium costatum		
Polycera hedgpethi		
Polydora armata	Blister worm	
Polydora hoplura	Shell boring worm	
Polydora websteri	Mud worm	
Polymastia fusca	Dark brown sponge	
Polymastia sp.		
Polyprion oxygenios	Hapuku, groper	198, 315
Polysiphonia senticulosa		
Polysiphonia subtilissima		
Pomatoceros terranovae		
Porzana pusilla	Marsh crake	125, 182
Priapulus australis		
Prionace glauca	Blue shark	297
Pseudechinus albocinctus	Pink urchin	
Pseudocaranx denetx	Trevally	140, 297
Pseudolabrus miles	Scarlet wrasse	140, 297
Pseudophycis bacchus	Red cod	140, 297
Pseudophycis barbatus	Southern bastard red cod	140, 297
Pterocladia lucida	Agar weed	1
Pterocladiella capillacea		1
Puffinus carneipes	Flesh-footed shearwater	182
Puffinus gavia	Fluttering shearwater	30, 182
Puffinus griseus	Sooty shearwater	73, 152, 239
Pugetia sp.		
Pyura pachydermatina	Sea tulip	

SCIENTIFIC NAME	COMMON NAME	REFERENCES
Raspalia sp.	Orange finger sponge	
Raspalia topsenti		
Rattus rattus	Ship rat	
Retropinna retropinna	Smelt	
Rexea solandri	Gemfish	297
Rhodymenia linearis	Red algae	1
Rhombosolea leporina	Yellowbelly flounder	32
Rhombosolea plebia	Sand flounder	140, 297
Rhombosolea tapirina	Greenback flounder	297
Ruanoho decemdigitatus	Longfinned triplefin	140, 297
Ruanoho whero	Spectacled triplefin	140, 297
Saccostrea cucclIata	Rock oyster	
Sagmariasus verreauxi	Packhorse rock lobster	
Samolus repens	Sea primrose	
Sarcocornia quinqueflora	Glasswort	
Sardinops neopilchardus	Pilchard	20, 297
Sargassum sinclairii		1
Scomber australasicus	Blue mackerel	297
Scorpaena papillosus	Dwarf scorpionfish	297
Scorpis aequipinnis	Blue maomao	140, 297
Scorpis lineolatu	Sweep	140, 297
Scutus breviculus	Black sea slug	
Selliera radicans	Remuremu	
Seriola lalandi	Kingfish	140, 297
Seriolella brama	Common warehou	297
Seriolella punctata	Silver warehou	297
Serpulorbis aotearoicus		
Serpulorbis spp.		
Spartina anglica	Cord grass, spartina	
Spinifex sericeus	Spinifex	
Spisula aequilater	Triangle shell	
Splachnidium rugosum	Gummy weed	1
Sprattus spp.	Sprat	21
Squalus acanthias	Spotted spiny dogfish	297
Squalus sp.	Northern spiny dogfish	297
Stegnaster inflatus	Ambush star	
Stellatta crater	Orange cup sponge	
Stelleta conulosa		
Stenogramme interupta		
Sterna striata	White-fronted tern	338, 341
Stichaster australis	Sea star	
Stichopus mollis	Sea cucumber	
Stigmatopora macropterygia	Smooth pipefish	297
Strictocarbo punctatus punctatus	Spotted shag	117
Styela clava	Club tunicate	
Syzygium maire	Swamp maire	
Tawera spissa	Morning star shell	306
Tellina liliana	Wedge shell	306
Terebratella haurakiensis	Lampshell	104, 228, 229, 230
Terebratella sanguinea	Lampshell	104, 228, 229, 230

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Tethya aurantium		
Tethya ingalli	Pink golfball sponge	
Theora lubrica		306
Thyrsites atun	Barracouta	140, 297
Torpedo fairchildi	Electric ray	297
Trachurus spp.	Jack mackerel	297
Tricellaria porteri		
Trochus sp.	Top shell	306
Trochus viridus	Green topshell	306
Tucetona laticostata	Dog cockle	306
Turbo granosus	White cats eye	306
Turbo smaragdus	Cats eye	306
Tursiops truncatus	Bottlenose dolphin	68, 233, 234, 236, 237, 264, 265
Ulva laetevirens	Slender sea lettuce	1
Ulva spp.	Green sea lettuce	1
Undaria pinnatifida	Japanese kelp	1
Upeneichthys lineatus	Goatfish	140, 297
Urechis novaezelandiae	Acorn worm	
Venericardia purpurata	Purple cockle	306
Venerupis largillierti		306
Virgularia gracillima	Sea pen	
Waltonia inconspicua	Tiny lampshell	104
Watersipora subtorquata	Red encrusting bryozoan	
Xiphophora chondrophylla	Broccoli weed	1
Zearaja nasutus	Rough skate	141, 144
Zenatia acinaces	Scimitar mactra	306
Zeus japonicus	John dory	140, 297
Zonaria angustata		1
Zonaria subarticulata		1
Zonaria turnerian		1
Zostera muelleri	Sea grass, eel grass	

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Department of Conservation
Te Papa Atawbai
MARLBOROUGH DISTRICT COUNCIL