

PUKA ĀRAHI MŌ TE TAPĀTAI ONE

SANDY AND MUDDY SHORE GUIDE



He puka ārahi ngāwari mō ngā kararehe me ngā tipu e kitea noatia ana ki ngā tapātai one o Aotearoa ki te Raki.

Common animals and plants living on the sandy and muddy seashores of northern New Zealand.

KŌTORE MOANA ANEMONES

- Kōtore Burrowing Anemone** *Edwardsia neozelanica* 20 mm
- Kōtore Mudflat Anemone** *Anthopleura hemaphysodonta* 20 mm

TIOTIO BARNACLES

- Attached to cockle shells
- Estuarine Barnacle** *Austrominus modestus* 5 mm

IKA FISH

- Estuarine Triplefin** *Forsterygion nigripenne* 90 mm
- Kaurarewa Spotted Stargazer** *Gerygynus monoptyerygius* 450 mm
- Pātiki Sand Flounder** *Rhombosolea plebeia* 430 mm
- Pātiki Rori Sole** *Pelorhampus* spp. 350 mm

PĀPAKA CRABS

- Burrow opening**
- Pāpaka Stalk-eyed Mud Crab** *Hemiplax hirtipes* 35 mm
- Pāpaka Paddle Crab** *Ovalipes catharus* 150 mm
- Burrow opening**
- Pāpaka Tunnelling Mud Crab** *Austrohelice crassa* 20 mm
- Pāpaka Hurahura Hairy-handed Crab** *Hemigrapsus crenulatus* 40 mm
- Pāpaka Estuarine Pillbox Crab** *Halicarcinus whitei* 10 mm

KŌURAURA ME NGĀ URI TATA SHRIMPS & HOPPERS

- Big eyes**
- Potipoti Burrowing Amphipod** *Panoropeum* spp. 3 mm
- Mowhiti / Mōwhitiwhiti / Potipoti Sandhopper** *Bellorchestia* spp. 14 mm
- Kāwhiriwhiti Moana Snapping Shrimp** *Alpheus richardsoni* 65 mm
- Burrow entrance and exit**
- Tawawera Ghost Shrimp** *Fibballanassa tholoi* 60 mm
- Tawawera Mantis Shrimp** *Heterosquilla tricornata* 75 mm
- Tawawera Sand Shrimp** *Philochersus australis* 40 mm

TOKE MOANA WORMS

- Toke Moana Spaghetti Worm** Family Terebellidae 40 mm
- Toke Waitai Owendid Worm** Family Owenidae 45 mm
- Toke Moana Cirratulid Worm** Family Cirratulidae 100 mm
- Toke Moana Coddle Shell Worm** *Boccardia acas* 20 mm
- Toke Waitai Ribbon Worm** *Phylum Nereitae* 200 mm
- Toke Moana Catworm** Family Nereitidae 100 mm
- Toke Moana Ragworm** Family Nereitidae 100 mm
- Toke Moana Bamboo Worm** Family Maldanidae 130 mm
- Toke Moana Blood Worm** Family Glyceridae 130 mm
- Toke Moana Lugworm** *Arenicola affinis* 100 mm
- Toke Moana Polychaete Worm** Family Glyceridae 100 mm
- Feecal casts**

ANGARUA BIVALVES

- Nat Clam** *Lincolia hartvigiana* 8 mm
- Tawera Morning Star Clam** *Tawera spissa* 25 mm
- Kuhakaha Small Dog Cockle** *Glycymeris modesta* 30 mm
- Hahari Oblong Venus Clam** *Venerupis largillierii* 60 mm
- Taangi / Hāia / Huanui / Huanui Cockle / Little-neck Clam** *Austrovenus stutchburyi* 50 mm
- Katara Ribbed Venus Clam** *Leukoma crassicosta* 45 mm
- Taangi Horuru Venus Clam** *Desinia subrotata* 60 mm
- Wafer Clam** *Hiatula siliquens* 50 mm
- Pipi / Angarite, Kōkōta Pipi** *Phaphys australis* 60 mm
- Takarepo Sunset Shell** *Goni canorus* 60 mm

- Kaikākarero Triangular Trough Clam** *Crossula angulata* 70 mm
- Whāngai Karoro Surf Clam** *Spisula* sp. 90 mm
- Hanikura Wedge Clam** *Maccomma illiana* 55 mm
- Ti Pacific Oyster** *Crassostrea gigas* 120 mm
- Tuātua / Kahitua / Kaitua / Pipi-karaki / Tairaki Northern Tuātua** *Paphies subtriangulata* 50 mm

PŪPŪ & NGĀKIHI SNAILS & LIMPETS

- Pūpū Top Shell** *Miceleneolis huttoni* 5 mm
- Koeti Large Horn Snail** *Zecumantus latidens* 25 mm
- Pūpū Wheel Snail** *Zethalia zelandica* 22 mm
- Titiko / Karahi / Karehu / Koriakai Mud Snail** *Amphibola crenata* 30 mm
- Koeti Horn Snail** *Zecumantus subcarinatus* 15 mm
- Ngākihi Estuarine Limpet** *Notosmea scopula* 11 mm
- Tūkoaka Southern Olive Snail** *Amalida australis* 30 mm
- Whētiko Mudflat Top Shell** *Diloma subrotata* 25 mm
- Auger Shell** *Euterebra tristis* 24 mm
- Pūpū-waharoa Olive Bubble Shell** *Bulla quoyi* 55 mm
- Ngāere Necklace Snail** *Tanea zelandica* 33 mm
- Kāwari Mudflat Whelk** *Caminella glandiformis* 25 mm
- Tūkoai Ostrich Foot Whelk** *Pelcaea vermis* 40 mm
- Pūpū Tuatua White Bubble Shell** *Hammonia zelandiae* 20 mm
- Kōre Small Turret** *Sitacacypis piagoda* 30 mm
- Kāwari Spotted Whelk** *Caminella aderseni* 45 mm
- Australian Dog Whelk** *Nassarius burcharadi* 12 mm
- Papatai Turret Shell** *Mauriculus reusens* 60 mm
- Tōtoro Wentletrap** *Cirsotrema zeebachi* 22 mm

PŪPŪ & NGĀKIHI SNAILS & LIMPETS

RIMURIMU & DIATOMS SEAWEED & DIATOMS

- Rimurimu Kura Gracilaria** *Agarophyton chilense* 500 mm
- Rimu Sea Lettuce** *Ulva* spp. 300 mm
- Rimurimu Kura Filamentous Red** *Polydipnomia* spp. 150 mm
- Spume (Diatom matter)**
- Benthic Diatom (green scum)**

DRIFT

- Kotakota Ngūi Ram's Horn Squid Shell** *Spirula spirula* 30 mm
- Kararua Violet Snail** *Junthina* sp. 45 mm
- Wewere Pelagic Barnacles** *Lepas ornatifera* 40 mm
- Thumoana / Kaitiako Blue Bottle Jellyfish** *Physalia physalia* 150 mm

KINA SEA URCHINS

- Kina Papa Sand Dollar** *Fellaster zelandiae* 100 mm
- Kina Pūpū Heart Urchin** *Echinocardium cordatum* 90 mm
- Wiri Knobby Clubmoss** *Ficinia nodosa* 1500 mm
- Wiri Sea Rush** *Juncus kraussii* var. *australis* 1200 mm
- Wiri Jointed Wire Rush** *Apodisma similis* 1500 mm
- Manawa Mangrove** *Avicennia marina australasica* 2000 mm

KIA TIAKINA KĀ TINI O TAKAROA SHOW RESPECT FOR SEASHORE CREATURES



- Ata hiko! Tread carefully.
- Waiho atu kā tini o Takaroa! Leave creatures where you found them.
- Waiho atu kā rimurapa kua piri ki kā toka! Leave attached seaweed in place.
- Kia kāwari tō pā atu ki kā tini o Takaroa – pātata atu ki te whenua me ō rīkarika māku! Handle creatures with care - close to the ground with wet hands.
- Kia āta whakahoki kā toka ki ō rātau wāhi tika! Carefully put rocks back to the same position you found them.
- Kauraka e rahi tō kohikohi aka, he kāika kē mō ētahi atu tini o Takaroa! Limit your collection of empty shells as other creatures use them as homes.

KIA KAHA KIA KAURAKA E RAWEKE I KA TINI O TAKAROA AVOID DISTURBING WILDLIFE



- Me noho tawhiti koe i kā manu me kā pēnu! Keep your distance from seabirds including penguins.
- Me noho tawhiti koe i kā pakake me kā whakahao! Keep your distance from seals and sea lions.
- Whakamahia ō karu toro me tō kāmera ki te titiro pātata! Use the zoom on your camera or binoculars for close viewing.
- Ki te pātata atu kā whakahao ki kōe – āta neke whakamuri! If sea lions approach you - back away slowly.
- Kia mauri tau tāu kuri! Keep dogs under control.

KIA TŪPATO, KIA TIKA HOKI TŌ MAHI BE CAREFUL AND KEEP SAFE



- Me aro atu ki kā tai timu, tai pari! Check tide times to avoid being cut off by rising tide.
- Kauraka koe me tō kotahi e toro atu ki te ākau toka! Do not explore the seashore alone.
- Me aro atu koe ki kā tohu o te raki me Tawhirimātea! Watch for changing weather.
- Kia mataara ki kā karu – kauraka e huri tuarā atu i a Takaroa! Look out for waves - never turn your back to the ocean.
- Kia tūpato ki kā wāhi māeneene, ki kā toka titaha hoki! Beware of slippery and uneven rock surfaces.
- Haria atu kā para ka kimihia ki te ākau, whiua ki te ipu para kē! Pick up any rubbish found on the shore and dispose of it appropriately.



University of Otago
ŌTĀKOU WHAKAIHI WAKA



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NEW ZEALAND MARINE STUDIES CENTRE
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Every effort has been made to ensure the accuracy of this guide at the time of publication.