

He Tirohanga Whānui



He aha te āpure moana?

Ko te āpure moana he rohe o te moana kua rāhuitia kia tiakina. E mōhiohia ana ngā rohenga o ngā āpure moana, kāore he rangirua. Ka taea te āpure moana te toro atu ki tētahi wāhi, mai i te rārangi tai pari ki te onepū, me ngā wahapū hoki, tae atu ki te 12 maero moana i waho atu i te takutai. Ko ngā momo taiao ka tiakina e ngā āpure moana pēnei i ngā ngutu awa, ngā takutai toka me te onepū, ngā ngahere manawa moana, ngā ākau, me te moana tuauriuri.

Ka tiakina ā-ture ngā kararehe me ngā nakinaki e noho ana i roto i te āpure moana, ā, kāore e āhei te hī ika, te kohikohi rānei i aua mea i roto i te āpure. Ka tiakina hoki ngā taonga kore ora pēnei i te one, ngā anga, me ngā toka

He aha te hiringa o ngā āpure moana?

Ka tiakina e ngā āpure moana ō tātou nōhonga tūhāhā o Aotearoa, ngā rawa taiao, ngā nakinaki, me ngā kararehe hoki. He wāhi haumarua ēnei mō ngā kararehe taketake kia noho, kia whakaputa uri, kia tipu hoki.

Ka āwhina ngā āpure moana ki te:

- Tiaki i te rerenga rauropi
- Whakapiki i te tokomaha o ngā ika me ngā momo kai o te moana (whakapiki i te mauri)
- Whakarato i tētahi taura kia taea ai te rangahau i te āhua o te moana i mua i te pānga o te tangata
- Pupuri i ngā mahi ā-taiao pērā i te tiaki i ngā waipuke, te tatari wai, me ngā tukanga ā-whenua
- Tiaki i ngā pūnaha hauropi i ngā mōrearea (kia manawaroa te pūnaha hauropi)
- Whakapiki i ngā whai wāhitanga mō te whakangahau me te tūruhi i Aotearoa.

Ka whai mātauranga hou tātou i te wā e ora anō ai ngā pūnaha hauropi o te moana i raro i te maru o ngā āpure moana.

Ko wai ka tiaki i ngā āpure moana?

Ko Te Papa Atawhai (DOC) ngā kaitiaki o ngā āpure moana o Aotearoa. Ka tautoko ngā kaunihera ā-rohe, ngā tūao, me ētahi atu rōpū, kia āwhina i a DOC ki te manaaki, ki te tiaki i ēnei wāhi whakahirahira.

I hopukina ēnei kōrero mai: [chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://www.doc.govt.nz/Documents/getting-involved/students-and-teachers/marine-reserves/marine-reserves-resource-activity-1.pdf](https://www.doc.govt.nz/Documents/getting-involved/students-and-teachers/marine-reserves/marine-reserves-resource-activity-1.pdf)

Kei hea ngā āpure moana o Aotearoa?

Kei te matawhenua katoa o Aotearoa e horapa ana ngā āpure moana, tae atu hoki ki ētahi o ngā moutere i Te Moananui-a-Kiwa. Ka taea e koe te kite i ēnei wāhi mā te toro atu ki te pae tukutuku nei: www.doc.govt.nz/marine-reserves-map

I hopukina ēnei kōrero mai: <chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://www.doc.govt.nz/Documents/getting-involved/students-and-teachers/marine-reserves/marine-reserves-resource-activity-1.pdf>

Me pēhea te whakaaweawe a te tangata i te taiao moana?

Ka taea e te tangata te huri i te āhua o te taiao moana mā āna mahi me ngā whanonga. He nui ngā take kua kōrerotia i tēnei ngohe e pā nui ana ki ō tātou moana me ngā pūnaha koiora moana. Ā tōna wā, ka taea e te tangata huri noa i te ao te whai wāhi ki ngā take e whakatuma ana i te oranga o te taiao moana.

He aha te take nui?

Ko te take nui he raruraru ka pā kino ki te moana, ki ngā āpure moana hoki.

He aha ētahi o ngā take nui e pā ana ki te taiao moana?

Ko ētahi o ngā tino take e pā ana ki te taiao moana o Aotearoa ko te huringa āhuarangi, te hao ika nui rawa, me te parahanga.

-  **Te huringa āhuarangi, te whakawera me te waikawa o te moana**

E piki haere ana te pāmahana me te waikawa o ngā moana nā te huringa āhuarangi. Kei te whakararuraru ēnei panonitanga i te oranga o ngā mea ora kei roto i te moana. Ka mutu, ka pā ēnei rerekētanga ki ngā kararehe katoa i roto i ngā pūnaha koiora o te moana. Ka whakarerekē hoki te waikawa o te moana i ngā tukanga kai, ngā nohonga, me ngā pūnaha koiora o te moana. Tirohia te rauemi mai i te University of Otago – The Ocean of Tomorrow: Ocean Acidification and the Marine World:

 www.otago.ac.nz/marine-studies/resources/download/otago636544.pdf

-  **Te hao ika nui rawa**

Ko te hao ika nui rawa, arā, te tango i te nui o te ika atu i te kaha o te taiao ki te whakahou i a rātou mā te whakaputa uri me te hekenga ika. E rua, arā ko te hao ika ahumahi me te hao ika mō te whakangahau, kua pā nui ki ngā rauemi o te moana i te rautau kua hipa. Ahakoa e māmā ake ana te hopu i te ika nā ngā hangarau hou, kei te āwhina hoki aua hangarau ki te whakaiti i te mau ika hē (bycatch) me te hī ika kia toitū ake. He tino kino ngā momo hī ika pērā i te kāraru me te hī toia ki te papa moana.

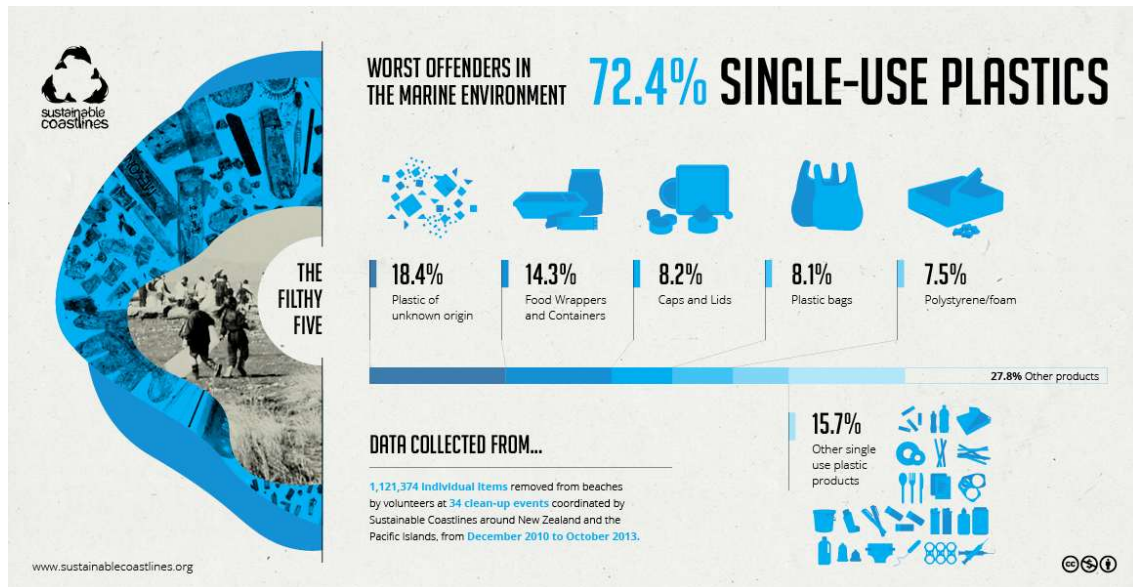
-  **Te Parahanga**

He nui ngā momo parahanga, pēnei i te para, te mōmona kirihou, ngā matū, me ngā mea kino pērā i te raima. Ka pā kino ēnei mea katoa ki ngā kararehe e noho ana i te takutai me te moana. Ko ngā mea katoa ka taka ki ngā awa, ngā awaawa iti, ngā pūnaha wai ua rānei, ka taea te kawē atu ki te moana, ā, ka raru te taiao moana nā reira.

Te Para me ngā Kirihou

Ka raru ngā mea ora katoa i te moana i te para, i te rāpihi rānei. Ka rite pea te āhua o te kirihou ki te kai mō ētahi kararehe moana pēnei i ngā honu me ngā manu moana, ā, ka kaihia, ka pā kino, ka mate rānei aua kararehe i te kai i aua para

I hopukina ēnei kōrero mai: <https://www.doc.govt.nz/globalassets/documents/getting-involved/students-and-teachers/marine-reserves/marine-reserves-resource-activity-7.pdf>



NGĀ MEA NUI E HARA I TE TAI AO MOANA

72.4% NGĀ KIRIHOU KAUPAPA-KOTAHĪ ANAKE TE WHAKAMAHI

Te Rima Parahanga (The Filthy Five):

18.4% Kirihou kāore i te mōhiotia tōna takenga mai

14.3% Ngā kākahu kai me ngā ipu kai

8.2% Ngā uhi me ngā taupoki

8.1% Ngā pēke kirihou

7.5% Kirihou pāngia pērā i te pahuka / pōhutu (Polystyrene)

15.7% Ētahi atu momo kirihou whakamahinga-kotahi

27.8% Ētahi atu hua

TĀTAURANGA I KOHIA MAI I...

1,121,374 ngā taputapu takitahi i tangohia i ngā takutai e ngā tūao. E 34 ngā hui whakapai takutai, i whakaritea e Sustainable Coastlines huri noa i Aotearoa me ngā moutere o Te Moananui-a-Kiwa, mai i Tihema 2010 ki Oketopa 2013.

Mō ētahi atu pārongo e pā ana ki te para kei te takutai, me ngā mahi ka taea e tātou, tirohia:

<http://sustainablecoastlines.org>

Te Waipara me te Rerenga Wai

He hua ā-taiao te waipara i hangaia i te horonga whenua, engari mā te nui rawa o te rere waipara ka mate ngā kararehe moana, ka whakarerekē hoki i ngā nohonga moana mō te wā roa.

I hopukina ēnei kōrero mai: <https://www.doc.govt.nz/globalassets/documents/getting-involved/students-and-teachers/marine-reserves/marine-reserves-resource-activity-7.pdf>

Ngā Mōrearea Haumarū Koiora me ngā Kīrearea Moana




Ko ngā kīrearea moana he momo mea ora kāore e hiahia, e tipu ana i roto i te taiao moana. Ka taea te kawē i ēnei kīrearea mā ngā waka me ngā taputapu wai, ā, ka horapa ki ngā whanga me ngā wahapū.

Kua kitea kē i Aotearoa ētahi kīrearea pēnei i:

- te noke ā-Marikirani (Mediterranean fanworm)
- te pāpaka ā-Āhia (Asian paddle crab)
- te clubbed tunicate/leathery sea squirt

Mēnā ka kite koe i tētahi kararehe, tipu rānei, e āhua rerekē ana i te moana – ā, ki te kitea hoki ētahi tohu mate i te oranga o te moana – tukuna atu he pūrongo ki Te Manatū Ahu Matua (Ministry for Primary Industries - MPI) mā te waea i te nama: 0800 80 99 66 (Pest and Disease Hotline).

Tirohia ēnei rauemi hei āwhina:

-  Te aratohu tautuhi kīrearea moana o Aotearoa (MPI): <https://www.mpi.govt.nz/dmsdocument/10478-new-zealand-marine-pest-id-guide>
-  Ataata LEARNZ – The Aquatic Biosecurity System (5:32 meneti): https://www.youtube.com/watch?v=aW3HyrJ_WrI
-  Rauemi ako a MPI: Biosecurity – Protecting our local environment <https://www.mpi.govt.nz/dmsdocument/19580-te-ao-turoa-levels-1-and-2-biosecurity-protecting-our-local-environment>

Ngā Kuri me ētahi atu Kīrearea Nā te Tangata i Whakauru

Ka pā kino ngā kīrearea nā te tangata i kawē mai, ki ngā kararehe moana me ngā mea ora o te whenua hoki. Ka takahi ngā kuri kāore i raro i te whakahaere i ngā wāhi whakatipu manu, ka whati i ngā hēki manu, ka whakararu i ngā mātua e noho kōhanga ana, ā, ka whakamate i ngā pīpī. He maha ngā takutai kua whakatakotohia he ture mō ngā kuri, ā, me whai whakaaro ngā kaupuri kuri ki ēnei ture.

Ko ētahi atu kīrearea pērā i ngā kiore, ngā ngeru, ngā tuatete, me ngā mustelid ka kai i ngā hēki manu me ngā pīpī, pēnei i te tara iti. I ētahi wā, ka kai hoki ēnei kararehe i ngā hua ika ka whakatakotoria ki ngā wai pāpaku, ki runga rānei i ngā rau.

He tino mōrea ō tātou manu moana ki ngā kīrearea nā te mea he maha kei te whakatipu i runga i te one.

 Tirohia: www.doc.govt.nz/education-taiko

 Tirohia hoki mō ngā moutere kīrearea-kore: www.doc.govt.nz/pestfree


Te Kore Tiaki i te Taiao Moana

He maha ngā ture, ngā kaupapa here, me ngā taputapu whakahaere kei Aotearoa hei tiaki i te taiao moana, pēnei i ngā wāhi haumarū mō ngā tohorā me ngā āpure moana. Heoi, he iti rawa te rahi o ngā āpure moana kāore e āhei te hī ika ki reira, ina whakatauritea ki te nui o tō tātou rohe moana – neke atu i te 4 miriona kiromita tapawhā.

I hopukina ēnei kōrero mai: <https://www.doc.govt.nz/globalassets/documents/getting-involved/students-and-teachers/marine-reserves/marine-reserves-resource-activity-7.pdf>

Te Hao Ture-kore (Illegal Harvesting)

E mōhiotia ana te rahi me te maha o ia momo ika ka taea te hopu, ā, he ture kei te mana. Engari, kāore katoa e whai ana i ēnei ture. Ka heke te tokomaha o ngā ika me ērā atu o ngā taonga i te moana nā tēnei.

 Tirohia ngā ture rahinga me te maha o te hopunga ika:

www.mpi.govt.nz/fishing-rules

Te Whakararu i te Takutai: Ngā Waka i te One


Ka whakangaro ngā waka i ngā tipu me ngā kararehe o te takutai e mōrea ana. Ka whakatipu ētahi manu takutai i waenga i ngā tāhuna one, ā, ka whakatakoto ētahi ki runga tonu i te one. He uaua te kite i ō rātou hua nā te pai o tō rātou whakangahuru. Nā konei, kei te heke haere te tokomaha o ēnei momo manu. He mōrearea hoki ngā waka ki ngā tāngata kei te one, ā, ka kino hoki ki ngā rōpū anga pipi, tuatua, me ētahi atu kai takutai.

Te Kore Mōhiotanga, Mātauranga rānei i te Hapori

I ētahi wā, kāore anō ētahi i wheako i te painga o ngā āpure moana, o ngā wāhi tiakina rānei ki ngā ika me te ōhanga. Mā te whakanui i te mōhiotanga ki ēnei take, me te wānanga i ngā huarahi hei whakatika i ēnei raruraru, ka taea te whakamōhio i te hapori. He mea nui te whakarongo ki ngā tirohanga huhua kia taea ai te whakaae tahi me te waihanganga rongoā tika mō ia hapori.

Te Whakangaro i ngā Nohonga me te Whakarerekē i te Papa Whenua

Kei te piki haere te hiahia mō te hanga whare me te whakawhanaketanga whenua, inarā e pātata ana ki te takutai. Ka nui ake te mōrea o te taiao moana nā te whakarerekē i te whenua, pēnei i te whakahokinga whenua me te wāwāhi i ngā nohonga taiao.

 Kimihia ngā mahere whanaketanga i tō rohe, ā, wānangatia ngā pānga pea ki te taiao moana me ngā kararehe e noho ana i reira. I hopukina ēnei kōrero mai: <https://www.doc.govt.nz/globalassets/documents/getting-involved/students-and-teachers/marine-reserves/marine-reserves-resource-activity-7.pdf>