Puka Whakamārama o te Pepe Nui

Te Hiku

Te Takenga mai o te Pepe

I piki ake a Tāne, te Atua o te ngahere, ki ngā Rangi Tūhāhā, kia toro atu ki tōna tuakana a Rēhua. Nā Rēhua he ahi tunu kai, he hue hoki i tono. Ko tā Tāne, 'He aha tā tāua kai e te tuakana?' Ka rūrūa e Rēhua tōna upoko kia taka atu kia rua ngā tūi i ōna makawe. Tūmeke atu a Tāne, kihai ia i te pirangi kai i ngā manu tapu nō te upoko o tōna tuakana. Ka uia kē e ia, 'Me whakahoki ēnei manu ki a Papatūānuku?' I whakaae a Rēhua, ā, ko tā Rēhua ka noho ngā manu ki ngā rākau, ka kai i ngā hua o te ngahere. I a Rēhua e rūrū ana i tōna upoko i puta atu hoki ētahi atu 'manu' o Rēhua, arā a Pepe, a Tātarakihi, a Pihareinga, a Kēkerewai. Ko ēnei pēpeke kua tapaina ko 'Ngā Manu a Rēhua', ā, he manu e puta mai i te raumati.

Ngā Whetū

Ko te kōrero o pepe kua kawea e te kāhui whetū o Rēhua te mātāmua o Raki rāua ko Papa. Ko ia te whetū whero, te ariki o ngā whetū.

Wairua Tangata

Ko ō te whakaaro Māori ko te wairua o rātou kua wehe ki te pō, kua hoki mai ki te ao marama hei pepe.

He mea whakahirahira te pepe ki te rerenga rauropi (biodiversity) o Aotearoa

He whānau rahi te **Lepidoptera**, arā ko ngā pepe me ngā pūrerehua. Ko rātou te tuatoru o ngā pēpeke katoa i Aotearoa. 1750 nui ake ngā momo pepe kua tapaina. E ai ki ngā kaipūtaiao kia 300 anō kāore anō kia huraina.

He motuhake te Pepe

86% o ngā pepe i Aotearoa he mea taketake (endemic). Nō konei ake, mā tātou e tiaki.

He aha i hira ai te pepe?

He wāhi nui ki ngā pepe ki te **rauropi (ecosystem)** ko rātou te pū o te **tukutuku kai** matatini. He **kaiota (herbivore)** te anuhe i ngā otaota taketake.

He **whakaaiai (pollinator)** whakahirahira te pepe. He nui nei ngā otaota taketake ka whakaaiaitia e te pepe. Ka mahi tēnei mahi nui i te pō i a te marea e moe ana, nā reira ka whakaṛapaina e tātou te mahi rangatira o te pepe. He tino kai te pepe mā ngā pēpeke me ngā manu taketake. Heoi anō he kai mātua hoki ki ngā riha rāwaho pērā i te kiore itiiti me te kiore.

He riha hoki te pepe

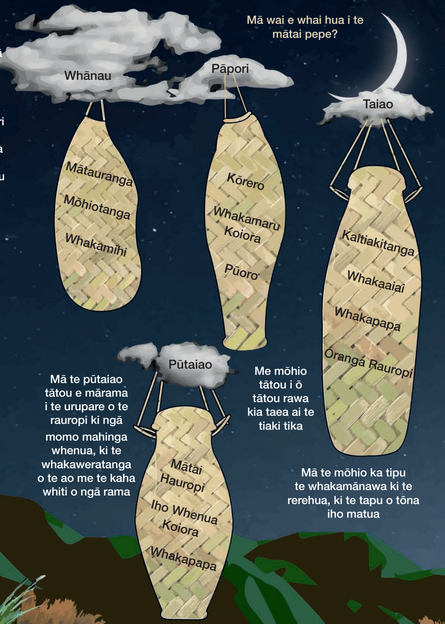
Ko Hīhue (te Pepe Kūmara, *Agrius convolvuli*) tētahi riha nui i ngā māra kūmara. He nui hoki ngā whakatauki mō te āwhato me te nui o tāna mahi kai.

He riha rāwaho nō inātata nei ko te pepe codling (*Cydia pomonella*) i kawea mai i Ūropi, ā, ka kainga ngā āporo, ngā pea, ngā wōronati me ētahi atu hua rākau.

He maniheko te pepe i tāna kai i ngā pūeru kua tuia i te whītau māori pērā i te wūru, i te mōhenu me te huruhuru. Me te mea nei tokoiti noa ngā momo pepe e kai pūeru ana. He māmā te whakatika, me tuku atu ngā pūeru ki te pātaka makariri kia rua pea ngā wā.

Puka Whakamārama o te Pepe Nui

Ko ngā pepe nui, ngā pepe māori anake nō tēnei wāhi taiao ki tēnei pānui. Ki te kitea e koe tētahi pepe kāore i roto i te pānui nei, he mea puiaki pea, he mea noho hōrapa pea ehara nō tēnei wāhi taiao, he pepe ririki pea, he mea hou pea.



Me hopu te pepe?

Ka puta te pepe i te pō nā reira kāore te nuinga e mōhio ana e hia, kei te aha rānei ngā pepe. Me te whakarapa tonu, engari me kohi ngā pepe kia tūtohu.

Te hua o te raraunga aronga whānui?

Mā te whakamahi i te momo māhanga kotahi (arā te Māhanga Pepe Heath) ka inehia ngā raraunga i ahu mai i ngā wāhi katoa, i te huringa wā hoki. Mā te raraunga aronga whānui ka tiakina tahi ai tātou te pepe. Mehemea ka heke ngā nama ka tere kitea e mātou, ā, ka whakatauria rautaki kia maimoatia ai ngā pepe.

He aha te hua o te raraunga whakatauine?

Mā te tātai i ia pepe o tētahi momo pepe ka kohi pārongo anō atu i te rārangi ingoa noa. Ko tēnei pārongo, ko te raraunga whakatauine. Mā te huhua o te pārongo ka kitea he panonitanga i te wā, i te wāhi rānei.

He aha me mātai ai ngā pepe?

He ngāngara māpua te pepe. He nui ngā momo pepe e whai mahi ana, e whai wāhi ana i te rauropi. He hononga anō tō te pepe ki ērā atu momo koiora (arā, otaota, manu, momo riha rāwaho, ērā atu pēpeke).

Mēnā he panonitanga i te rauropi ko ngā pepe tētahi o ngā koiora tuatahi ka rangona te kātoitoi. He tohu pai o te panonitanga ki tō rātou rauropi.

Kuputaka?

Lepidoptera: Pepe, Pūrerehua
Taketake/Endemic: Nō tērā wāhi ake
Rauropi/Ecosystem: Ko te taiao me ōna āhuatanga katoa
Tukutuku kai: Ka kai a wai í a wai
Kaiota: Kararehe kai otaota anake
Huna/Nocturnal: Ka mahi i te pō
Hapori/Community: Ngā momo koiora nō tētahi takiwā

Mā raro nei he wāhi āwhina anō

www.landcareresearch.co.nz/mothnet
Email: MothNetOtago@gmail.com
@MothNetNZ
MothNetNZ
www.naturewatch.org.nz/
Entomological Society of New Zealand:
www.ento.org.nz

Ngā mihi

Ngā tuhinga, te kiko me te hanga o te pānui nā Dr Barbara J Anderson, rātou ko Komene Cassidy, ko Victoria Campbell, ko Dr Robert Hoare, ko Tiahuia Kawe-Small, ko Tahu MacKenzie, ko Dr Ralf Ohlemüller, ko Tangiwai Rewi, ko Dr Priscilla Wehi, ko Emma Burns. Nā Sean W Gilles ngā whakaahua. Nā Dr Robert Hoare rātou ko te hapori pepe o Aotearoa te rārangi pepe i kohi. Nā Birgit Rhode ngā whakaāhua mai i ngā tauira i te NZAC, nā te pūtea tautoko mai i Terrestrial Freshwater Biodiversity Information System (TFBIS).

I huatia mai te pānui nei e Manaaki Whenua i te kaupapa, Ahi Pepe MothNet.
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ISBN: 978-0-947525-27-9 (2017)

"Ka puta te pepetuna i te pō, ka puta ki te wero tuna"
Tangiwai Rewi

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Ka hou ki te whenua, he tūkoukou; ka puta ki te rangi he pepe — *Te āwheto kai paeka* — *Me te upoko tūkoukou* — *I hikaina te ahi titi, engari i whakapoapoa kē i te pepe* – Te Whiti o Rongomai — *He iti hoki te mokoroa, nāna i kakatī te Kahikatea*

Geometridae

Chalastra aristarcha
Cleora scriptaria
Chalastra pellurgata
Declana atronivea
Declana hermione
Declana floccosa
Declana junctilinea
Declana leptomera
Ischalis gallaria
Gellonia dejectaria
Gellonia pannularia
Ischalis variabilis
Ischalis nelsonaria
Pseudocoremia indistincta
Pseudocoremia fenerata
Pseudocoremia leucelaea
Pseudocoremia monacha
Pseudocoremia productata
Pseudocoremia rudisata
Pseudocoremia suavis
Sarisa muriferata
Sestra flexata
Sestra humeraria
Anachloris subochraria
Asaphodes beata
Asaphodes chlamydota
Austrocidaria similata
Austrocidaria bipartita
Austrocidaria gobiata
Austrocidaria parora
'Chloroclystis' filata
Elvia glaucata
Epiphryne undosata
Epiphryne verriculata
Epyaxa lucidata
Epyaxa venipunctata
Epyaxa rosearia
Helastia cinerearia
Helastia mutabilis
Helastia cymozeucta
Helastia semisignata
Homodotis megaspilata
Microdes epicryptis
Microdes quadristrigata
'Hydriomena' deltoidata
'Hydriomena' rixata
Orthoclydon praefectata
Pasiphila bilineolata
Pasiphila inductata
Pasiphila lunata
Pasiphila melochlora
Pasiphila plinthina
Pasiphila semochlora
Pasiphila sphragitis
Phrissogonus laticostatus
Pasiphila testulata
Poecilasthena schistaria
Poecilasthena pulchraria
Poecilasthena subpurpureata
Tatosoma alta
Tatosoma lestevata
Tatosoma tipulata
Tatosoma transitaria
Tatosoma topea
Scopula rubraria
Xyridacma ustaria

Erebidae

Schrankia costaestrigalis
Dasypodia cymatodes
Pantydia sparsa
Rhapsa scotosialis

Noctuidae

Helicoverpa armigera
Bityla defigurata
Agrotis innominata
Agrotis ipsilon
Agrotis munda
Diarsia intermixta
Austramathes purpurea
Austramathes fortis
Cosmodes elegans
Feredayia graminosa
Graphania chlorodonta
Graphania infensa
Graphania lignana
Graphania insignis
Graphania sp. nr *plena*
Graphania ustistriga
Graphania mutans
Graphania plena
Leucania stenographa
Meterana alcyone
Meterana coeleno
Meterana decorata
Meterana diatmeta
Meterana levis
Meterana ochthistis
Meterana pansicolor
Meterana stipata
Meterana vitiosa
Mythimna separata
Proteuxoa tetronycha
Proteuxoa sanguinipuncta
Spodoptera litura
Tmetolophota arotis
Tmetolophota atristriga
Tmetolophota hartii
Tmetolophota purdii
Tmetolophota semivittata
Tmetolophota steropastis
Tmetolophota sulcana
Thysanoplusia orichalcea
Chrysodeixis eriosoma
Ctenoplusia albostriata
Ctenoplusia limbirena

Nolidae

Uraba lugens

Hepialidae

NOTE: When printed *Aenetus virescens* NOT TO SCALE of other moths. Image and scale bar shown here at 75% of actual size.

Aenetus virescens
Wiseana signata
Dumbletonius unimaculatus
Hindwings and abdomen in live moth are a much deeper purplish red.

Sphingidae

Agrius convolvuli

Saturniidae

Opodiphthera eucalypti