



Te Kōhaka o Tūhaitara Trust

# **Te Rauhīnga o Te Tini a Tāne** (he rauhīnga koiora)



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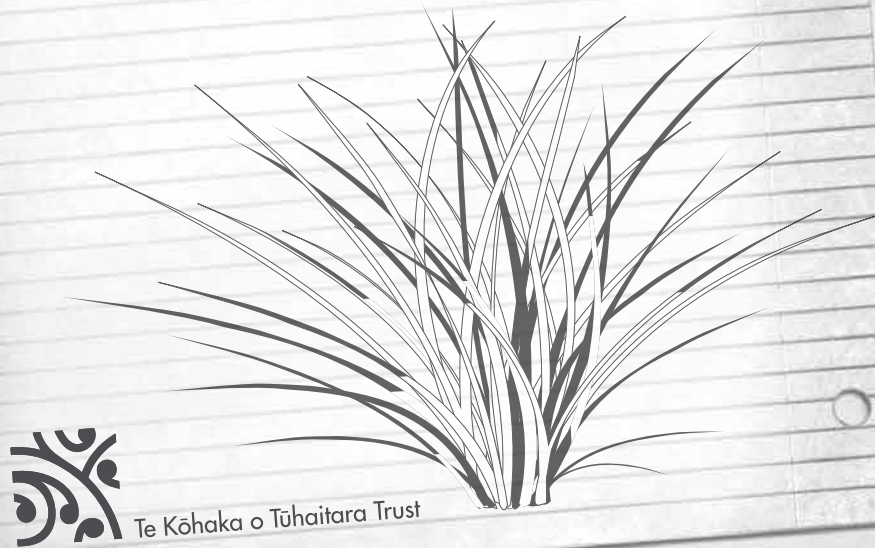
*Nā Peter Langlands (Wild Capture Research & Photography) te manatū © o ngā whakaahua katoa ki ngā whārangi 14 – 19, atu i ērā kua tohua kē atu.*



# Kupu Whakataki

Te Tini a Tāne: ko ngā tupu, ko ngā  
kararehe me ngā ngārara o tēnā takiwā,  
o tēnā takiwā

Rauhinga – te wāhi e whakaemihihia  
tētehi tūāhuatanga, kia tiakina ia, kia  
penapenahia ia.



Te Kōhaka o Tūhaitara Trust

Ko te matawara 200 tau o Te Kōhaka o Tūhaitara,  
kia matomato ai te tupu o ngā rākau taketake  
o tēnei whenua mai i te pūwaha o te awa  
Waimakariri tae atu rā ki te wahapū o te Rakahuri.

Kia whai kiko ai tēnei matawara, arā, kia whānui ai te tupu o Te Tini a Tāne  
huri noa i te mata o tēnei whenua, ka whakaritea e mātou he kōtuinga o ēnei  
momo rauhinga koiora.

Ka whakaritea ēnei rauhinga koiora kia pākorō nei te āhua, me he puna  
wai hoki kei roto i a ia. Kei te āhua 200m-300m te mamaotanga mai i tēnā  
rauhinga koiora ki tēnā.

Ko ngā momo rākau ka whakatōkia, ko ngā momo e kukume ai ngā manu me  
ngā ngārara Māori ki reira kai ai, ki reira noho ai. He hua, he waihonga te take,  
ā, ka waiho mā rātou anō, mā te hau rānei, ngā purapura o aua momo rākau e  
hari ki wāhi kē atu, tupu ake ai.

Tūtū rawa mai ēnei rauhinga  
koiora ki ngā wāhi tū motuhake,  
tū takitahi, ko te tūmanako ia,  
ka whānui tonu tōna tupu, kia  
torokiki atu ki wāhi kē, tae noa  
atu ki te wā e tūhonohono ai  
tēnā rauhinga ki tēnā rauhinga  
ki horahia rawatia o te papa  
rēhia nei nā.

Ko te hātepe e tūtū rawa ai  
ngā rauhinga koiora nei, he  
ōrite tonu, ahakoa te wāhi,  
ahakoa te momo tupu,  
ahakoa te mono aha rānei.  
Mā te tini o ngā pākorō  
takitahi, nāwai rā ka hua  
ko te ngahere rahi kotahi.

Kai tēnei puka ngā  
mahere ako hai  
whakarite, hai  
whakatipu i ngā  
rauhinga koiora nei.



Whero Biota Node

# Mahere Ako

Akoranga tua: Kotahi . Rā: \_\_\_\_\_

Take: \_\_\_\_\_

Kura \_\_\_\_\_

## Mānawa



### Kupu Whakataki

- He tirohanga whānui ki Te Ohu Tautiaki me te Papa Rēhia nei, tae noa atu ki tōna matawara.
- He aha ia te take kei konei ngā rauhinga o Te Tini a Tāne? *Ko te take, ko te hiranga, me ngā hua o te Pae Tawhiti.*
- He tauira no ngā momo akoranga ka taea. *Te whakatū hinaki, doc 200, karu whakatata, tautuhi manu, He kauhau nā te pukenga taiao, manu, ika*
- He mihi ki ngā kaitautoko

### Akoranga-ā-mahi:

- Ngā tupu a Tāne
- Te whakamātau wai
- Kurupēhi kīrearea me te kurupēhi tarutaru
- Te mahere whakatō tupu-a-mua, tupu-a-muri hoki.

### Hua Ako:

- He mātau ki te kaupapa matua o Te Ohu Tautiaki o Te Kōhaka o Tūhaitara, me tōna matawara 200 tau.
- He mōhio ki tēnei mea ko te rauhinga o Te Tini a Tāne, ki te hiranga anō hoki o te papa rēhia takutai nei.
- Whakaarohia he ingoa mō tōu rauhinga koiora

### Pitopito Kōrero

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*Kia mahia i mua mai i te akoranga kei te heke  
Huaina tōu rauhinga koiora*

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Te Kōhaka o Tūhaitara Trust

### He pitopito korero nā te kaiako:

#### Te Papa Rēhia Takutai o Tūhaitara me Te Ohu Tautiaki o Te Kōhaka o Tūhaitara.

Ko te Papa rēhia nei, ko tētehi o ngā otinga atu o Te Kerēme o Ngāi Tahu, me te aha, whakatauria rawatia mai Te Kerēme, ka tākohangia atu tēnei whenua hei wāhi taonga mō ki te motu whānui.

Hei tā te Karauna rātou ko Ngāi Tahu, ko te kaunihera o Waimakariri, e tika ana kia whakahaeretia te wāhi taonga nei e tētahi Ohu Tautiaki kia whai wāhi ai ngā wawata o te hapori whānui tonu.

Heoi, ka whakahaeretia tēnei Papa rēhia e Te Ohu Tautiaki o Te Kōhaka o Tūhaitara.

#### Te Matawara

Tuatahi: kia whakatūria he papa rēhia takutai ki tēnei takiwā, ko tōna kaupapa matua, ko te kaitiakitanga me te aro ake ki ngā mahinga kai o te roto nei o Tūtaepatu. Tuarua: kia whānui te mātauranga o te hapori ki te taiao. Tuatoru: kia whai wāhi ngā mahi-a-rēhia me ngā mahi whakatā.

#### Ariā Matua

Te kanorau o Te Marae o Tāne, te rauwiringa kaiao, me te tiaki taiao.

#### Hua Ako Whāiti

Te mātau ki te wāhi o ngā rauhinga koiora i te mahi whakahou anō i Te Wao-nui-o-Tāne.

#### Ngā hononga ki te Marautanga (taumata 1, 2, 3)

Pūtaiao – Ngā whāinga o Te Ao Tū-roa: Tukanga Koiora; Mātauranga Taupuhi Kaiao.

# Mahere Ako

Akoranga tua: Tuarua . Rā: \_\_\_\_\_

Take: He Tānga Tupu

Kura \_\_\_\_\_

## Te Hāpua o Tūtaepatu

### He Tānga Tupu

- Ngā tupu taketake ki tēnei Papa-rēhia
- Te take e kīa nei he wāhi taonga ngā mōrehu ngāherehere nei o te wao-nui-o-Tāne.
- Ngā aupiki me ngā auheke o te mahi whakaora i te wao-nui.
- Te kohikohinga o ngā purapura mai i taua wāhi tonu.
- Te whakamakurutanga o ngā manu, ngā momo tupu e kukume ai te manu.

### Akoranga-ā-mahi:

- Ngā momo tupu me ngā tānga tupu
- te ratonga o te tupu.

### Ngā Hua Ako:

- Te mōhio ki te uaua o ngā mahi whakaora i te taiao, ēngari he nui hoki ngā hua ka puta i te āhua whakahangahanga.
- Tautuhia ngā momo tupu e hāngai ana ki tēnei takiwā (nā te purapura i kitea i konei tonu)
- He aha ia te tānga tupu?
- Tautuhia he momo tupu e kume ai te manu, māna ia kawē anō ki wāhi kē, torokiki ai. Tuhia tōna ingoa Māori, tōna ingoa pūtaiao, tōna ingoa karanga. Tautuhia tōna ake tānga tupu.

*Kia mahia i mua i te akoranga kei te heke mai*

*Whakarārangihia ngā tupu e ono e tika ana kia tū ki tōu ake rauhinga koiora.*

*He aha tōna ingoa karanga me tōna ingoa māori?*

*He aha hoki te tino take ka whakatōkia ia ki tēnei rauhinga koiora?*

*He tirohanga ki tērā akoranga o mua*

*Te ingoa o te rauhinga koiora*



Te Kōhaka o Tūhaitara Trust

*He tirohanga ki tērā akoranga o mua:*

**Te Papa Rēhia Takutai o Tūhaitara me Te Ohu Tautiaki o Te Kōhaka o Tūhaitara.**

Ko te Papa rēhia nei, ko tētehi o ngā otinga atu o Te Kerēme o Ngāi Tahu, me te aha, whakatauria rawatia mai Te Kerēme, ka tākohangia atu tēnei whenua hei wāhi taonga mō ki te motu whānui.

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Heoi, ka whakahaeretia tēnei Papa rēhia e Te Ohu Tautiaki o Te Kōhaka o Tūhaitara.

### **Te Matawara**

Tuatahi: kia whakatūria he papa rēhia takutai ki tēnei takiwā, ko tōna kaupapa matua, ko te kaitiakitanga me te aro ake ki ngā mahinga kai o te roto nei o Tūtaepatu. Tuarua: kia whānui te mātauranga o te hāpori ki te taiao. Tuatoru: kia whai wāhi ngā mahi-a-rēhia me ngā mahi whakatā.



# Mahere Ako

Akoranga tua: Tuatoru . Rā: \_\_\_\_\_

Take: He Tānga Tupu

Kura \_\_\_\_\_



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## Kōwaro



He Toro:

Te Papa Atawhai – Kowaro

Akoranga –ā–mahi:

Tautuhia te kowaro; Akona te take he ika whakahirahira ia, he aha hoki tōna mata-ora .

Ngā Hua Ako:

Te mātau ki ngā momo mahi tiaki i te kowaro kei roto tonu i tōna rauhinga koiora.

U	B	G	A	W	J	U	R
E	K	A	A	A	W	A	K
B	O	G	Q	I	A	U	O
X	W	N	H	T	I	R	U
M	A	O	U	A	R	P	N
G	R	A	A	H	E	O	G
V	O	T	H	A	P	N	A
V	X	W	N	A	O	X	B

TAONGA
RUA
WAITAHA
HUA
KOUNGA
REPO
KOWARO
WAI

*Kia mahia i mua i te akoranga kei te heke mai*

*Whakaotia te panga nei*

He tirohanga ki tērā akoranga o mua:

He aha te pūtake e kohia ai ngā purapura o tēnei takiwā tonu? He aha hoki te take me mōhio ki ngā tupu ka whai ake, ka tika?

He aha ia tēnei mea ko te 'tānga tupu'?

Whakarārangihia ngā tupu e ono e tika ana kia tū ki tōu ake rauhinga koiora. He aha tōna ingoa karanga me tōna ingoa māori? He aha hoki te tino take ka whakatōkia ia ki tēnei rauhinga koiora?

Te Tupu Tuatahi

Tōna tino take

Te Tupu Tuarua

Tōna tino take

Te Tupu Tuatoru

Tōna tino take

Te Tupu Tuawhā

Tōna tino take

Te Tupu Tuarima

Tōna tino take

Te Tupu Tuaono

Tōna tino take

# Mahere Ako

Akoranga tua: Whā . Rā: \_\_\_\_\_  
Take: Ngā rauhinga koiora – te whakamahere  
Kura \_\_\_\_\_

## Te Rauhinga o Te Tini a Tāne (he rauhinga koiora)

Whakaritea he mahere  
mā te rauhinga koiora

- Te kōwhiringa o ngā momo tupu e tika ana, me te whakatau, ka tū ki hea.
- Te mamaotanga mai i tēnā tupu ki tēnā tupu, me te mātau ake ki te tānga tupu e tika ana.

Akoranga-ā-mahi:

- Te waituhinga o te mahere: ka tū te aha ki hea?

Ngā Hua Ako:

- Ngā wāhanga motuhake o te mahi whakarite i te mahere, me te mahi waituhi i te rauhinga koiora

Pitopito Kōrero:

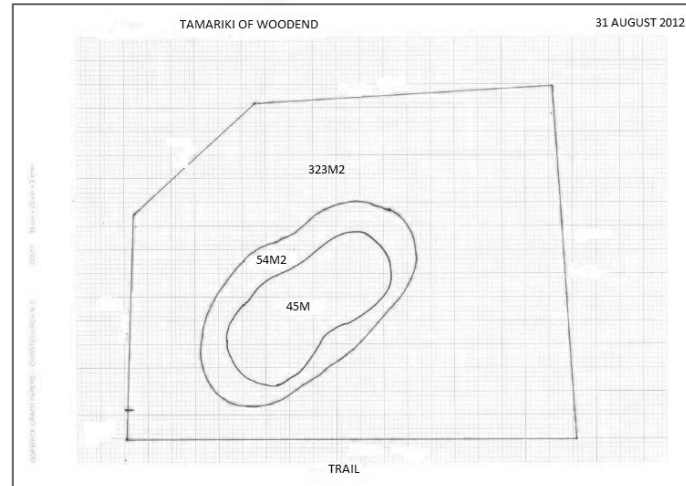
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Kia mahia i mua mai i te akoranga kei te heke:

Te rārangi tupu o ia rauhinga koiora



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He tirohanga ki tērā akoranga o mua:

He aha ngā mea e toru e whakamōrea ana i ngā momo tupu me ngā momo kararehe?

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_

He aha te mahi motuhake ka taea e te kowaro?

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# Mahere Ako

Akoranga tua: Rima . Rā: \_\_\_\_\_

Take: Ngā kīrearea

Kura \_\_\_\_\_



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## Nga kīrearea



- He aha te take o te kurupēhi?
- Ngā momo kaitukituki, ngā momo kurupēhi
- Me āta whakaaro, hai tauira; te kuri, te hōiho, te tangata me ngā tupu taketake

## Akoranga-ā-mahi

- Te whakarite i ngā arapoka tiro-tiro, te titiro ki ngā tāwhiti, te tuhi, ngā momo tāwhiti me ngā tikanga whakamahi
- Ngā momo kaitukituki me te tautuhitanga

## Hua Ako:

- Tautuhia ngā momo kīrearea me ngā tino tikanga kurupēhi i te Papa Rēhia Takutai.



X M C L N N P W L V L K J R B  
 S I A I L U I Z A I Z E P K X  
 N A M N M B E J Y Q T I P S P  
 S C Y D A H O B Y E N B A Z I  
 C U F P U M M U T C X O I L R  
 J P W K H E J A Y H I B H V H  
 A Z O D I M U L Q R K P A R C  
 J N V P N T C J O Q F L M N H  
 A Y P P O N I T A N I T A A R  
 D K A F Y H K I O R E H L K N  
 L T M K U S U H U R A B M I S  
 B D J B G A F E J B X O S B M  
 D I R M T O R I U R A H Q I W  
 T A I N O K A O Z E T P I F T  
 P F Y A S F D B A F S E G E B

TUATETE  
 TORIURA  
 TORI  
 HURA  
 PAIHAMA  
 NAKI  
 KIORE  
 MAUHI  
 PONITANITA  
 POPOHUE  
 KHE  
 TAINOKA  
 UAROA

## He tirohanga ki tērā akoranga o mua

He aha ngā wāhanga motuhake o te mahi whakarite i te mahere, me te mahi waituhi i te rauhinga koiora?

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Te rārangi tupu:

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Pitopito Kōrero

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*Kia mahia i mua mai i te akoranga kei te heke:*

*Whakamaua ngā kākahu tika mō te wāhanga tuna/ika*



# Mahere Ako

Akoranga tua: Ono . Rā: \_\_\_\_\_  
Take: Ngā tuna  
Kura \_\_\_\_\_

## Ngā tuna

- Ngā tuna o Aotearoa.
- He aha te mata-ora o te tuna?



## Akoranga-ā-mahi:

- NZ native eels *Anguilla spp.*
- View through microscopes: *shape, eyes, organs, blood (heart and circulation – see them moving), skin colouration.*

## Hua Ako:

- He aha ngā momo tuna (ingoa noa), ngā wāhanga tipu, ā, kai hea ngā hua e whakawhānautia.



## Pitopito Kōrero:

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## Kia mahia i mua mai i te akoranga kei te heke:

*Whakaritea te whakatō tupu i te rauhinga koiora tuatahi. Ngā momo tupu: ngā ririwaka, ngā kakaho me te harakeke.*



Te Kōhaka o Tūhaitara Trust

## He tirohanga ki tērā akoranga o mua

*Ngā momo kīrearea me ngā tikanga kurupēhi*

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## Pitopito Kōrero: tuna

E rua ngā tuna Māori: ko te tunahinahina *Anguilla australis* me te horohorowai *Anguilla dieffenbachii*. Ka kitea te tunahinahina i whenua kē i te Moana nui a Kiwa, engari kai Aotearoa anake te horohorowai.

Ka 30 ngā tau o te tunahinahina, ka 70 ngā tau te pakekeke o te horohorowai ka heke atu ngā tuna ki ngā wai mahana e tata ana ki Tonga whakaputa uri ai. Kotahi te huna heke, ka mate.

## E rima ngā ngā wāhanga tipu: hua, kūao, tuna karaehe, punuatuna tae atu ki te tuna tonu

He rite te āhua o ngā kūao ki te rau e mau upoko ana, he pakupaku aua kūao. Ka heke mai ki Aotearoa nei mā runga au moana, e rua tau te roa o te haerenga mai.

Nō te whakatatanga mai ki Aotearoa, ka huri hai kūao koataata, hai tuna karaehe. Ka tae tahi mai aua tuna karaehe me ngā inanga. Ka noho tata ki ngā wahapū, ka pōuri te āhua ka huri hai punuatuna, ka piki haere i ngā awa kia noho hai tuna tūturu

Ka kai ngā tuna i ngā momo mea katoa: i te wā e punuatuna tonu ana, he ngārara iti te tino kai, kia huri nei hai tuna tūturu ka kai ika (ka tino nui ka kai ngā tuna i ngā kiore me ngā punua rakiraki!)

He vomerine ngā niho tuna, ā, ka aro ki muri o te waha kia mau kaha ki te pāpurenga.

He kokopu hoki i ngā kura wai. He iti, he kōataata, ko ngā karu me ngā whekau noa ka kitea.

I reira hoki tētahi panoko *Cheimarrichthys fosteri*. Kotahi anake te momo panoko i Aotearoa nei, ā, ki tōna ingoa pūtaiao he ika hīrere. Ka noho i ngā tāheke tere o ngā awa pōhatuhatu.

# Mahere Ako

Akoranga tua: Whitu . Rā: \_\_\_\_\_

Take: Ngā Manu

Kura \_\_\_\_\_

## Ngā momo manu i te papa rēhia



- He aha ngā momo manu i te papa rēhia?
- He aha nga momo manu pai kia kumea ki te papa rēhia i ngā wā heke?
- He aha ngā momo tupu hai tahuna mai aua manu?

*Pitopito Kōrero:*

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*Kia mahia i mua mai i te akoranga kei te heke:*

*Whakamaua ngā kākahu tika mō te wāhanga tiro tiro manu.*

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*He tirohanga ki tērā akoranga o mua  
Tuna, te mata-ora*

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# Mahere Ako

Akoranga tua: Iwa . Rā: \_\_\_\_\_

Take: Ngā hātaretare

Kura \_\_\_\_\_

## Ngā hātaretare

- He aha ngā hātaretare?
- He aha rātou i noho ai i te papa rēhia?
- He aha te hiringa o ngā hātaretare?

### Akoranga -ā- mahi:

- Tautuhia ngā momo hātaretare
- Me pehea te tiaki

### Hua Ako::

- He aha ngā hātaretare?
- Tautuhia ngā momo hātaretare i te papa rēhia
- He aha te hiringa o ngā hātaretare?
- Me pēhe ate tiaki i ngā He aha te hiring o ngā hātaretare?

### Pitopito Kōrero:

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Kia mahia i mua mai i te akoranga kei te heke:

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Te Kōhaka o Tūhaitara Trust

He tirohanga ki tērā akoranga o mua

Ngā momo hātaretare e tautoko ana i te whakaora o ngā tupu taketake i Tūhaitara

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Kua oti te waituhi whare ngārara

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# He whakahounga

Akoranga tua: Tekau . Rā: \_\_\_\_\_

Take: He whakahounga

Kura \_\_\_\_\_



Te Kōhaka o Tūhaitara Trust



*Te matawara mō Te Kōhaka o Tūhaitara*

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Te Rauhīnga o Te Tini a Tāne:  
*he aha te rauhīnga koiora,  
he aha te take, he aha ngā hua*

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Ngā tānga tupu, ngā momo

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Ngā momo kīrearea me ngā tikanga kurupēhi

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Ngā momo ika i te papa rēhia

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Ngā ngārara

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Ngā momo manu

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Ngā hātaretare

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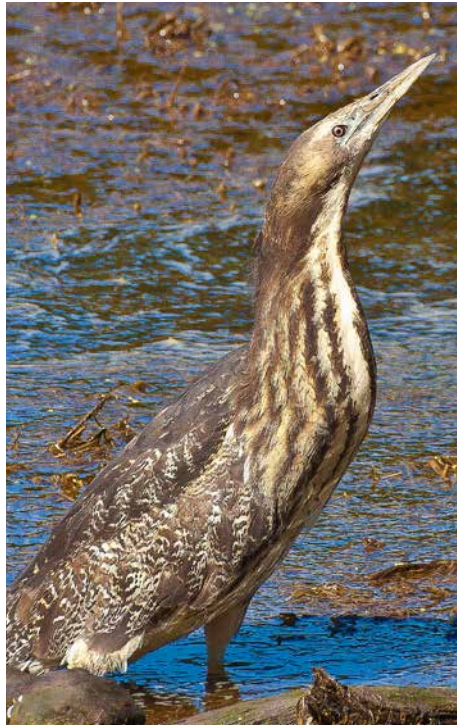
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# He rārangi *Manu*



Te Kōhaka o Tūhaitara Trust



Te matuku

© John Craig



Te korimako i te harakeke puāwai

© pse



Te tara puka



Te koau pango



Te koau pango



Te matuku rere



Ngā wani pango



Te kamana



Te piwakawaka



# He rārangi Manu



Te Kōhaka o Tūhaitara Trust



Te parera



Te patake



Te patake rere



Te riroriro i te tumatakuru  
© pse



Te kāhu rere ki te kina



Te kōtare



Te kawau



Te whekau i runga i te pou



# He rārangi *Manu*



Te Kōhaka o Tūhaitara Trust



He kōau iti



He rakiraki he parera he momo rakiraki  
he rakiraki parito



He koitareke



He putakitaki uha



He putakitaki toa



He koitareke



He tōrea



He rori



He rerewaka



Pipit



# He rārangi Manu



Te Kōhaka o Tūhaitara Trust



He kukupako



He kukupako me ngā punua rakiraki  
© pse



He hoho toa



He hoho uha



Spur winged plover



He Matuku-moana e nohonoho ana



He pihipihi



He Kōtuku



# He rārangi Ngārara



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Canterbury gecko

© Colin O'Donnell



Common skink

© Colin O'Donnell



McCann's skink

© Colin O'Donnell



He whare ngārara



# He rārangi Ika



Te Kōhaka o Tūhaitara Trust



He kōkopu  
© pse



He horohorowai



He piharau



# He rārangi *tāwhiti, he rārangi tiro tiro*



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DoC 200 kill trap



Holden trap



Monitoring kit



He tāwhiti waewae



Live capture comparison



He tapuwae whakataurite



# Pitopito Kōrero



Te Kōhaka o Tūhaitara Trust



A large, empty white rectangular area with rounded corners, intended for writing or drawing.

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Piwakawaka - India Jacob



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