

Habitat for Hūrepo!

Features of an intact Bittern habitat

LOVE BITTERN
PROJECT



Juvenile

Adult- Dark Phase
Chick

image: Jeff Davies

1 POPULATION OF BITTERN

Records of males 'booming' in the spring and **an estimated number of individuals** (including non vocal birds)

...or use crake as a indicator species!
A **presence of crake**. Puweto or koitareke have the same threats in common with Matuku and are thought to respond quicker to management interventions.

2 WATER

Is your wetland wet enough? Bittern need **15-20cm clear shallow water** for foraging, **>60cm of water with emergent vegetation** for nesting or resting **for >90 days** between Sep-Mar.

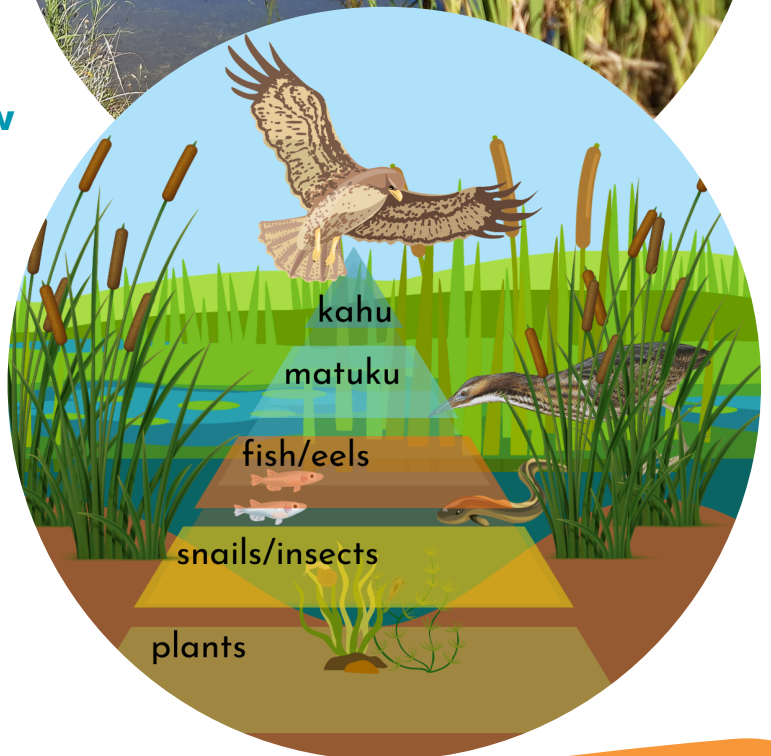
Bittern are visual hunters, they need clear and shallow water to see their prey.



3 FOOD

Bittern need an abundant supply of **eels and/or fish** + frogs, insects, crustaceans. Bittern can only take **small to medium sized** prey.

Native species are best - there may be a higher risk in eating some non-native species and perhaps lower nutritional value for effort.



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4 SIZE, SHAPE & PROFILE OF HABITAT

Complex, irregular edges eg, scalloped edges or meandering waterways.

Large **connected networks** of wetlands, waterbodies and waterways (connected to the sea where applicable).

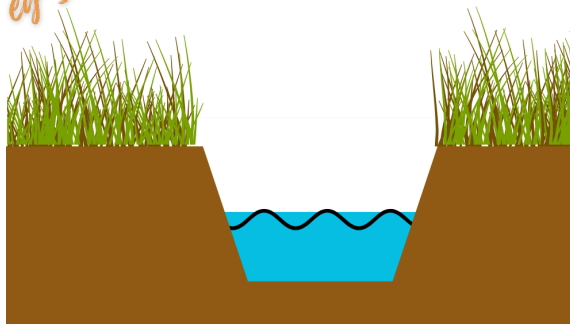
Scale is important but smaller quality habitat works too!

A **gentle sloping profile** into the water - allowing the water to expand and contract, providing for graduating water depths so there is always an optimal depth for foraging.

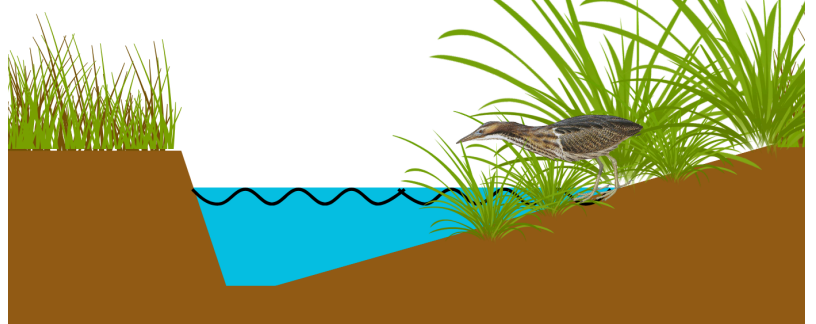


eg Drain rebattering

From this...



...to this.



5 VEGETATION

Bittern need vast areas of **low stature vegetation 80cm to 2m tall** over permanent water for nesting and resting with **little or no canopy trees**.

Bittern prefer **cover on or near shallow water** for foraging.

The vegetation should double as habitat for fish and allow fish penetration.



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6 PEST CONTROL

A buffer zone that **controls predators before arriving at the wetland / draws them away and not into the wetland.**

Controls that **target mainly cats and mustelids.**

Monitoring and control program for pest animals and plants.

7 PEOPLE

Bittern need **little or no human disturbance.**

Advocate for bittern and help reduce industrial/land use impacts (wind farms, water/power plants that might interrupt flight or fish passage)

People can help **protect and raise awareness for Bittern and their wetland homes** in their local communities

8 CLIMATE CHANGE

Bittern need stable wetland habitat and food sources in freshwater or brackish wetlands.

Sea levels are predicted to rise, reduce estuarine wetland habitats and change water salinity.

More extreme weather events are predicted (droughts, floods)

You can help by **assessing the risk** in your wetland and **establishing multiple wetlands** in your catchment for bittern - **long term restoration should be focused on >1m above sea level.**

STOP PREDATORS BEFORE ARRIVING AT WETLANDS

ridgelines

fencelines

drains

waterways

TARGET
feral cats &
mustelids
(stoats, weasels & ferrets)

Join the GREAT Matuku Muster

Nationwide synchronised counts of male bittern booming in Spring.



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need help?

CONTACT US

Habitat for Hurepo

WHAT IS YOUR
SCORE ?

PRIORITISE YOUR
NEXT ACTION

1 POPULATION OF BITTERN

Number of individual males **heard** booming,
+ number of birds **seen** in pairs or groups
+ number of chicks or fledglings **seen**

...or number of **crake heard** during monitoring
(score 1 if they have been **seen**, but no counts to confirm)

Total Bittern

or Total Crake

SCORE each point below on a scale of 1 to 3 where 3 is excellent and 1 is just meets criteria

2 WATER

- 15-20cm **clear** shallow water for foraging,
- >60cm of water with emergent vegetation for nesting or resting
- for at least 90 days between September and March.

Water score

3 FOOD

- Eels and/or fish abundance (can be seen most of the time)
- small to medium size prey (up to 25cm)
- mostly (more than half of the fish biomass) are native species

Food score

4 SIZE, SHAPE and PROFILE OF HABITAT

- complex, irregular edges - providing optimal edge habitat
- connected habitat -through waterways to source of prey
- a gentle sloping profile providing ramped access into the water

Habitat score

5 VEGETATION

- vast areas of vegetation 80cm to 2m tall over permanent water
- little or no canopy trees (in the above)
- cover on or near shallow water for foraging

Vegetation score

6 PEST CONTROL

- a buffer zone, trapline stopping predators before the wetland
- effective control of cats and mustelids
- monitoring and control program for pest animals and plants

Pest Control score

7 PEOPLE

- have little or no human disturbance (recreational access)
- advocate for bittern and help reduce industrial/land use impacts
- protect and raise awareness for Bittern and their wetland homes

People score

8 CLIMATE CHANGE MITIGATION

- assessed the risk of climate change on your wetland
- multiple wetlands restored for bittern in your catchment area
- at least one long term restoration project >1m above sea level

Climate score

Add up your score and total population to get your total %

TOTAL SCORE