

Prioritising established species in the OTs

Aim:

1. What species established in one part of a territory should be prioritised to stop them spreading to another part of the territory?
2. What species should be prioritised for eradication from the whole territory?

1. Prioritising prevention of spread

- Step 1. Assess what species are present in some parts but not others

Species	Grand Cayman	Little Cayman	Cayman Brac
Green iguana	✓	×	×
Brown rat	✓	✓	×

1. Prioritising prevention of spread

- Step 2. Assess the risk of introduction from islands where each species is established (donor) to those where they are not (recipient)

Species	Donor	Recipient	Likelihood of entry
Green iguana	Gran Cyaman	Little Cayman	High (4)
	Gran Cyaman	Cayman Brac	V. Low (1)
Brown rat	Gran Cyaman	Cayman Brac	Low (2)
	Little Cayman	Cayman Brac	Med. (3)

1. Prioritising prevention of spread

- Step 3. Add to this the likelihood of establishment and impact, then calculate an overall risk score

Species	Donor	Recipient	Ent.	Est.	Imp.	Risk Score
Green iguana	GC	→ LC	High (4)	High (4)	V. High (5)	80
	GC	→ CB	V. Low (1)	High (4)	Low (2)	8
Brown rat	GC	→ CB	Low (2)	Med. (3)*	High (4)*	24
	LC	→ CB	Med. (3)	Med. (3)*	High (4)*	36

* Note the top and bottom scores here are the same because it is the same recipient.

1. Prioritising prevention of spread

- Step 4. Rank the threats based on total score and use this to build consensus on final ranks for preventing spread

Species	Donor	Recipient	Risk Score	Rank
Green iguana	GC	LC	80	1
Brown rat	LC	CB	36	2
Brown rat	GC	CB	24	3
Green iguana	GC	CB	8	4

The final result is a ranked list indicating which species pose the greatest risk of moving from one island to another and causing serious impacts.

Note the feasibility of preventing this is not included within the prioritisation.

2. Prioritising eradication

- Step 1. For each species define the scenario and eradication strategy (for the whole territory, including all islands)

Species	Scenario	Eradication strategy
Green iguana	Cayman Islands (approx. 5 separate populations, 100 individuals, 20ha)	Trapping and shooting ...
Brown rat	Cayman Islands (10 popns, 500 ind, 20ha) and Little Cayman (1 popn, 10 ind, 1ha)	Poisoning combined with trapping ...

2. Prioritising eradication

- Step 2. Evaluate each strategy (using pre-defined criteria)

Species	Scenario	Strategy	Effectiveness	Practicality	Cost	Impact	Acceptability	Window of opportunity	Likelihood of reinvasion
Green iguana	<i>[defined]</i>	<i>[defined]</i>	High (4)	Medium (3)	Low (4)	High (2)	Medium (3)	Short (2)	Low (4)
Brown rat	<i>[defined]</i>	<i>[defined]</i>

Overall outcome

- For each territory these processes would result in two ranked lists as follows:

Cayman Islands	
Prevent spread of:	Ranked list by feasibility of eradication:
1. Green iguana from Gran Cayman to Little Cayman	1. Green iguana
2. Brown rat from Little Cayman to Cayman Broc	2. ...
3. ...	3. ...

Note that there is interplay between these (if you eradicate green iguana you don't need to stop it spreading).

If desirable it may be possible to merge these two lists and get people to rank each action (prevent spread or eradicate) in order of priority to produce a final list of prioritised actions.