



Biodiversity for Life

South African National Biodiversity Institute

A New Invader? A Dwarf Chameleon Example



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Dwarf chameleons (Genus *Bradypodion*)



KNYSNA DWARF
CHAMELEON

B. DAMARANUM



PONDO DWARF
CHAMELEON

B. CAFFER



WESTERN DWARF
CHAMELEON

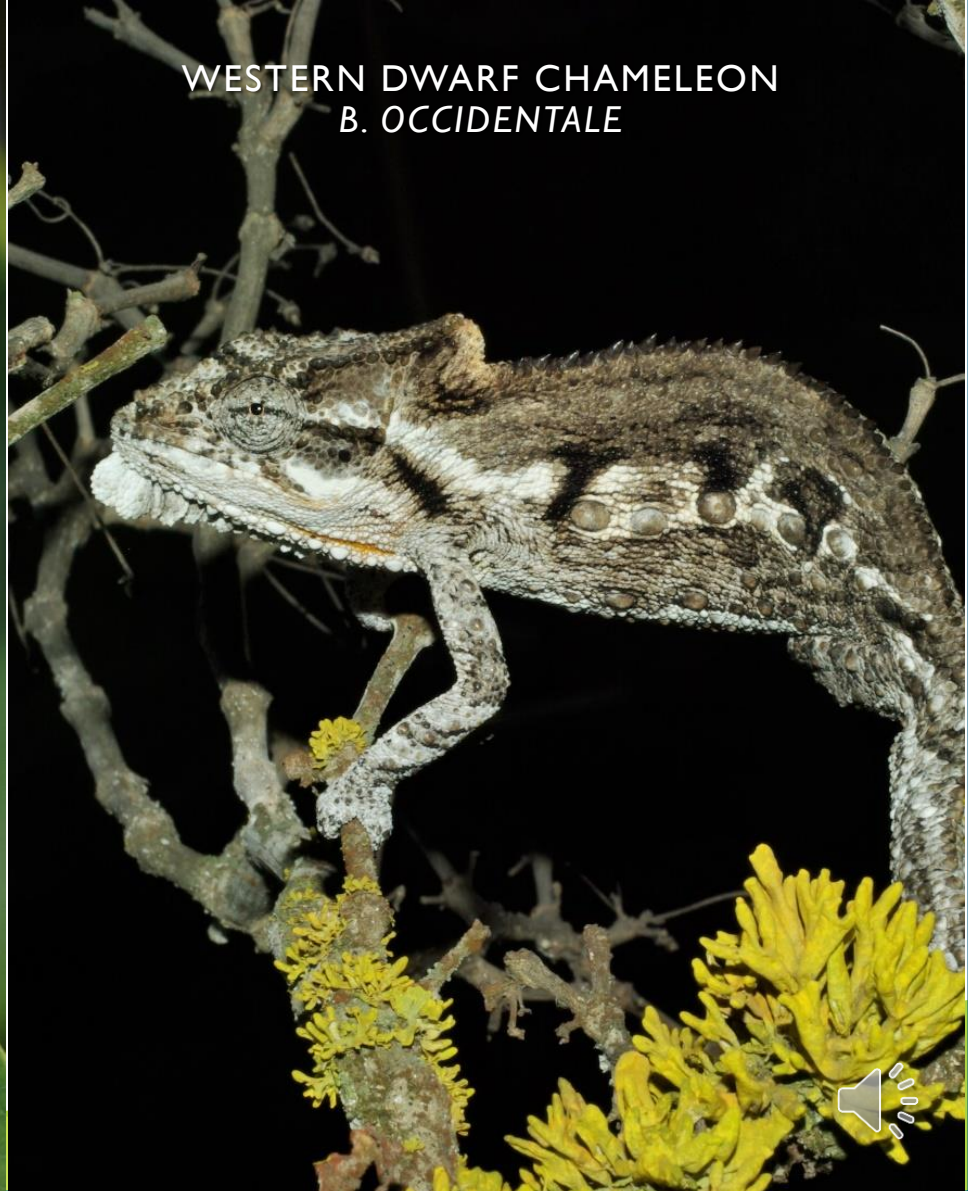
B. OCCIDENTALE

Cape Town's two indigenous Dwarf Chameleons

CAPE DWARF CHAMELEON
B. PUMILUM



WESTERN DWARF CHAMELEON
B. OCCIDENTALE



Detecting novel Invasive Alien Species

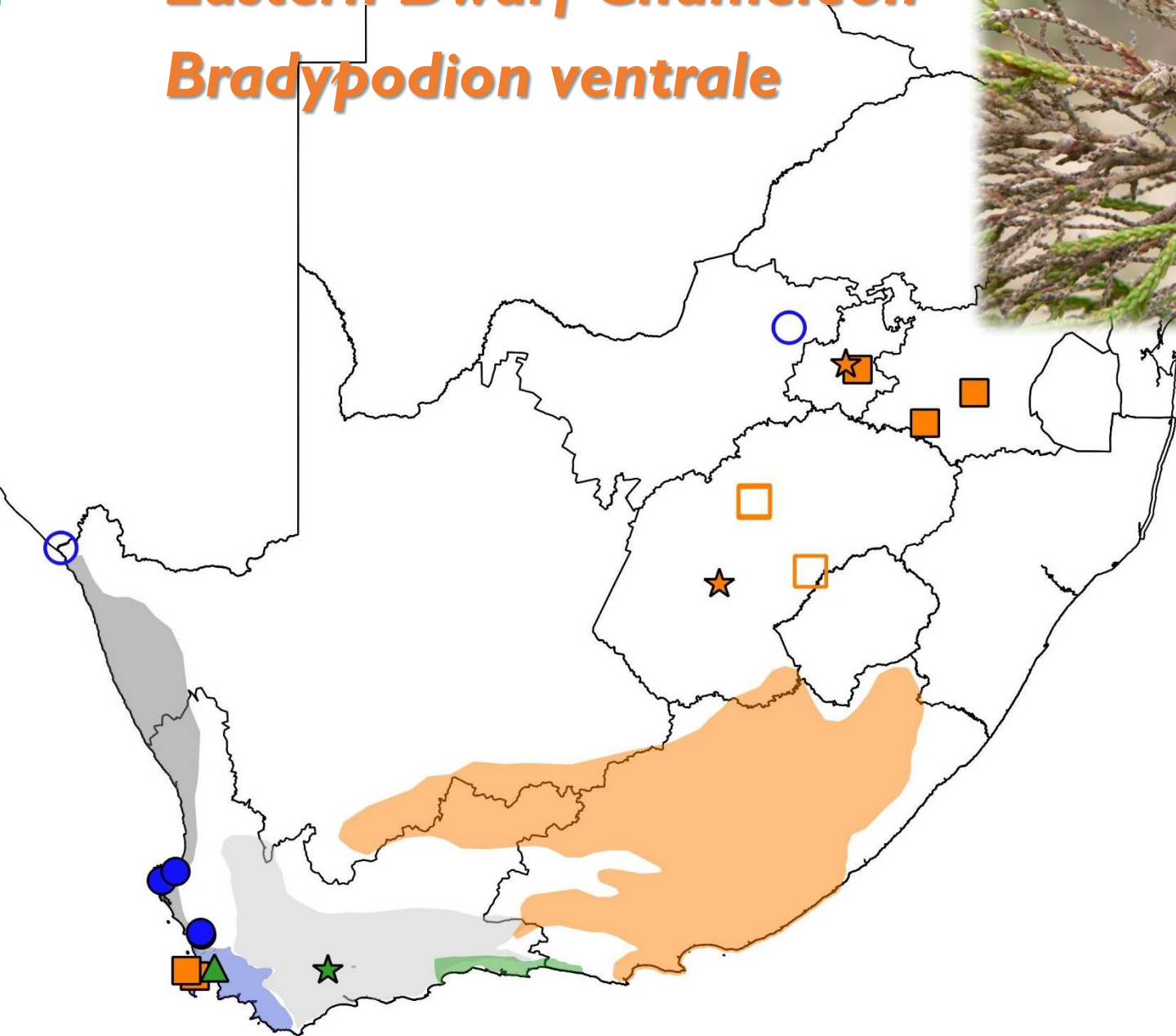
NOTE PUBLISHED IN 2020 ON ALIEN DWARF CHAMELEONS

CHAM-ALIENS: PRESENT AND HISTORICAL TRANSLOCATIONS OF CHAMELEONS (*BRADYPODION*)

K.A. TOLLEY

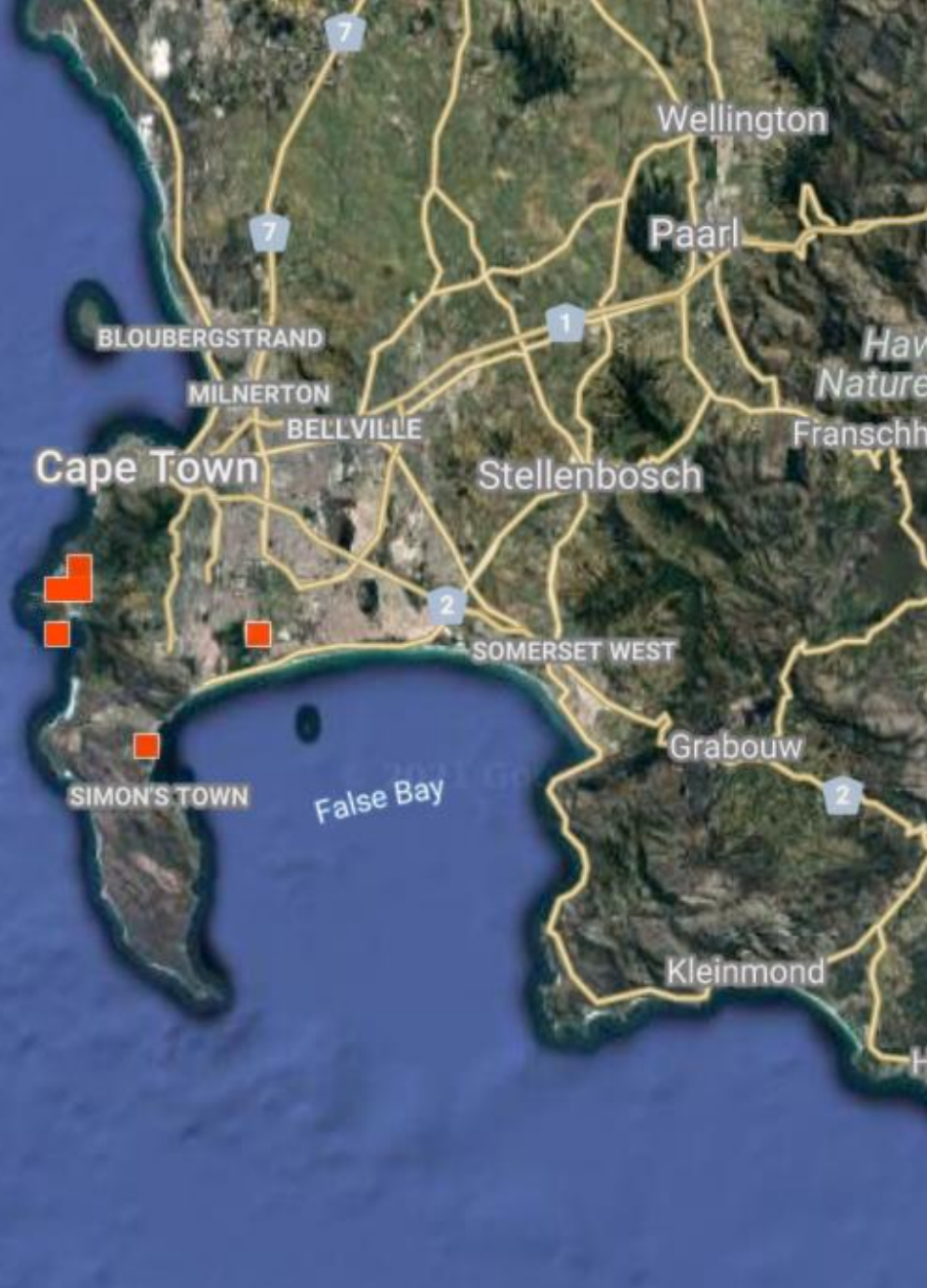
AFRICAN HERP NEWS 74 2021

Eastern Dwarf Chameleon *Bradypodion ventrale*



A new invader in Cape Town?

In Nov 2021: at least 6 new iNaturalist records of Eastern Dwarf Chameleon *Bradypodion ventrale* in Cape Town





Challenges: Access to populations

Can you catch all/enough individuals?

Can you gain access to (all) the properties where they occur?

Can you catch them before they reproduce & spread further – can you outrun them?

Challenges: Identification of chameleons



Challenges: Identification of chameleons



Challenges

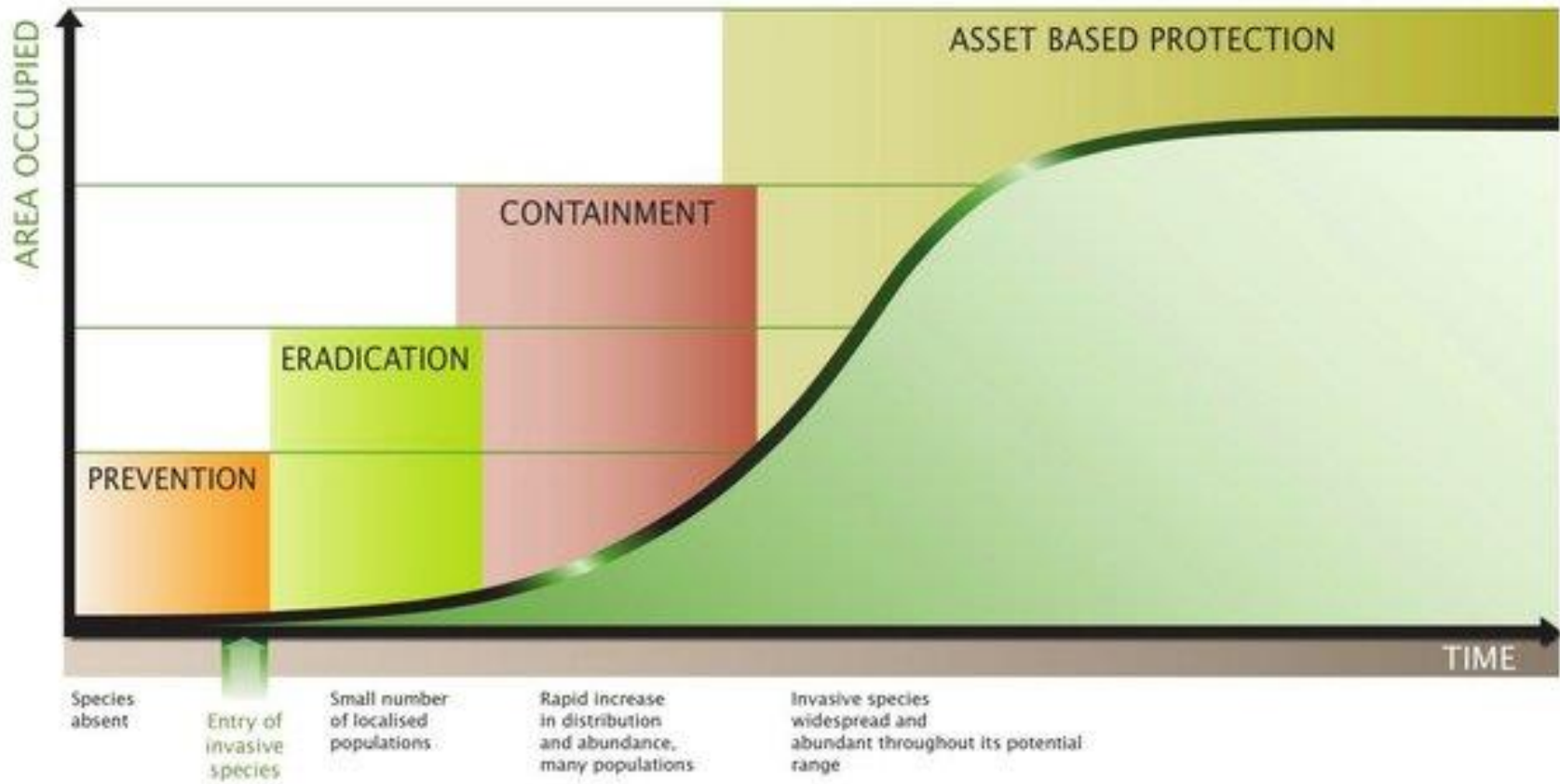
- Chameleons are cryptic
- Detection better at night but access to private property at night a challenge itself



When to Act?

GENERALISED INVASION CURVE SHOWING ACTIONS APPROPRIATE TO EACH STAGE

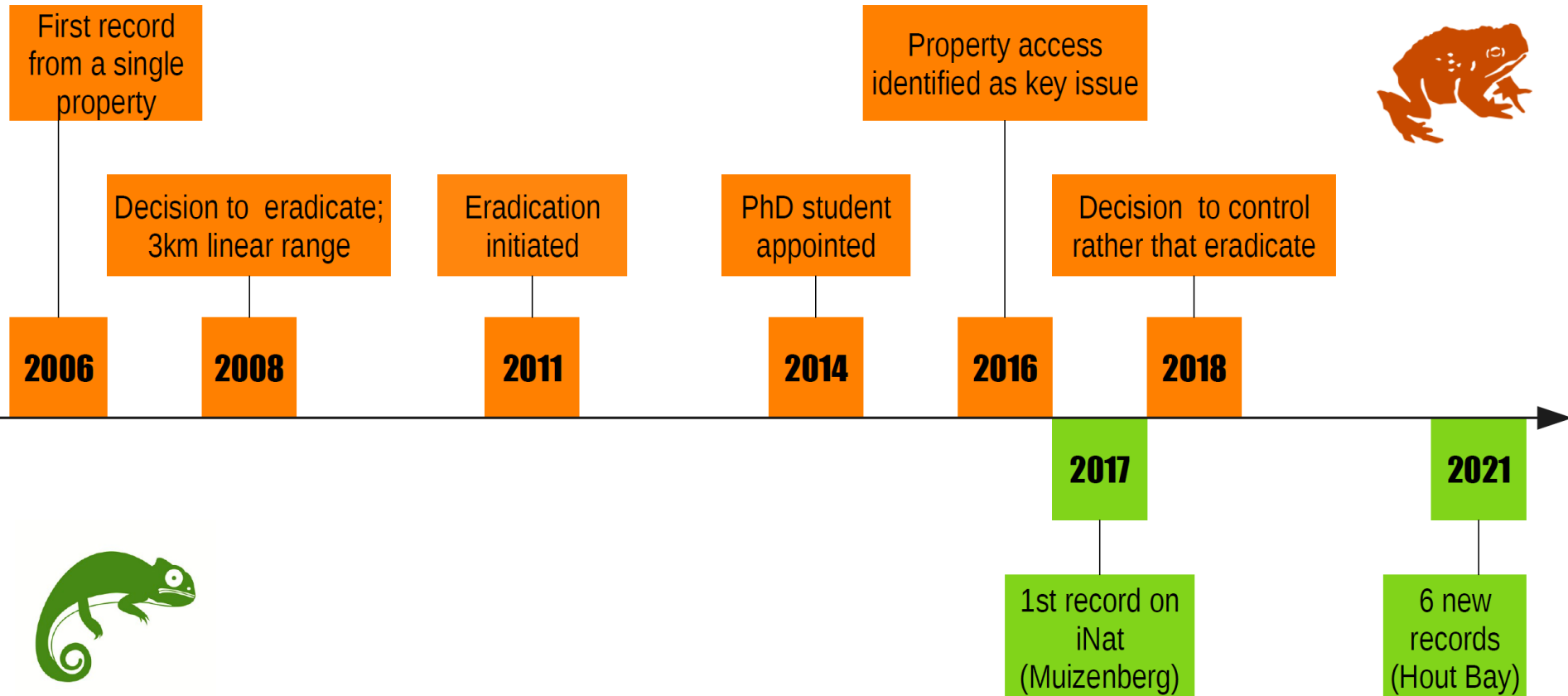
Version 2.0: 24 JUL 2013



ECONOMIC RETURNS (INDICATIVE ONLY)



Response time lines



Challenges

- Understand introduction pathways
 - Unintentional:
 - Nursery trade
 - Intentional:
 - 'Pet' trade
- Prevent further introductions & reintroductions:
 - Education Campaign:
Love it – Leave it!





In conclusion

- We need a *rapid* assessment of the invasive status of this species
- Rate our ability to remove all individuals in novel range
- Decide on the response which may be to gather more data which risks losing the initial opportunity to succeed when it is easiest & cheapest or to act immediately

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Thank you