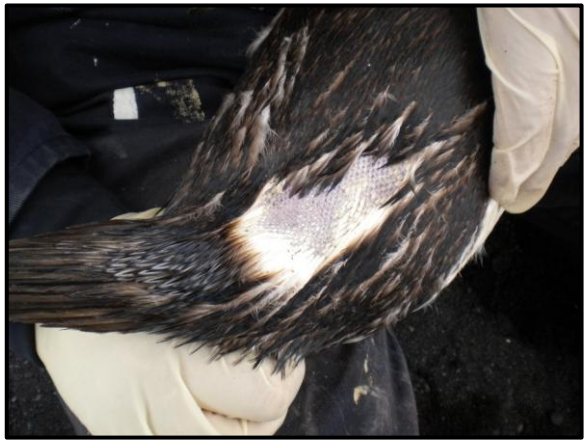
Landcare Research
Manaaki Whenua

Biosecurity Bonanza

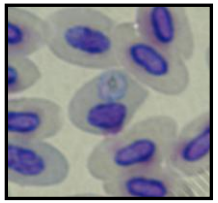


Andrea Byrom
May 2013

Core funding environment

- 10 Portfolios of research
- '*Managing Invasive Weeds, Pests & Diseases*' Portfolio

- 4 'Outcomes'
- Outcome 1: Biodiversity
- Outcome 4: Development within limits



B3

B3 | Science Solutions for BETTER BORDER BIOSECURITY
www.b3nz.org

- Landcare Research joins B3: July 2013
- Preparedness
- Risk assessment & risk pathway analysis
- Surveillance & detection
- Diagnostics
- Pre, at, post border biosecurity

Invasive Animals CRC

- Incursions Theme
- Quantitative modelling
- Rabbits, starlings, island eradications, foxes, mice, multiple-pest management, exotic wildlife trade

Incursion

Eradication

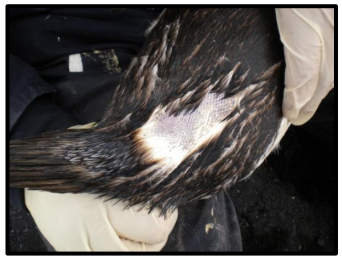
Containment

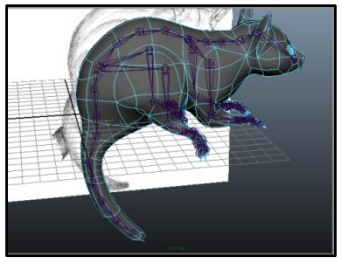
Asset Protection

Invasive Animals Cooperative Research Centre

National Science Challenges

- ‘Biodiversity & Biosecurity’
- Threats & resilience
- Era of collaboration





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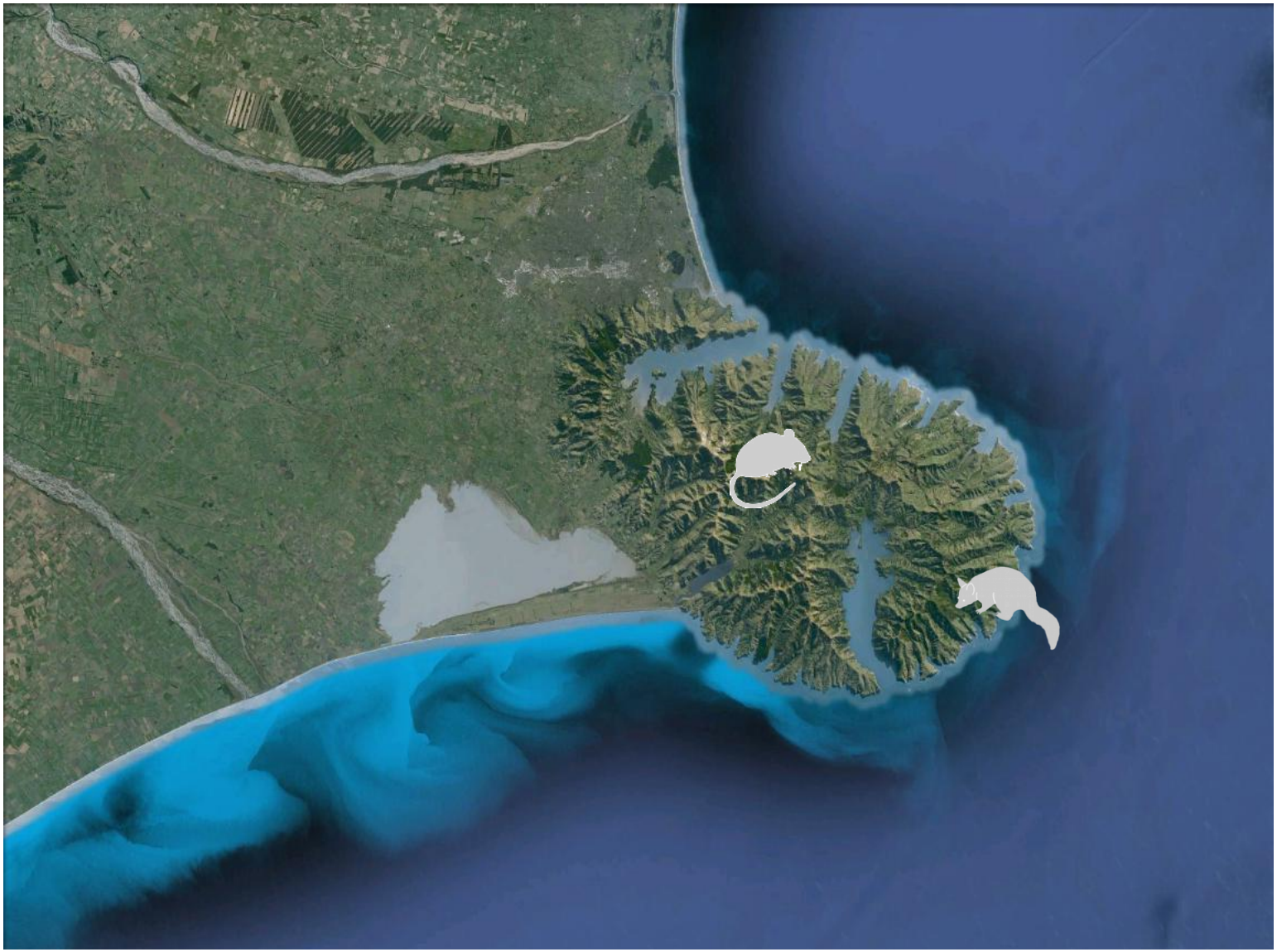
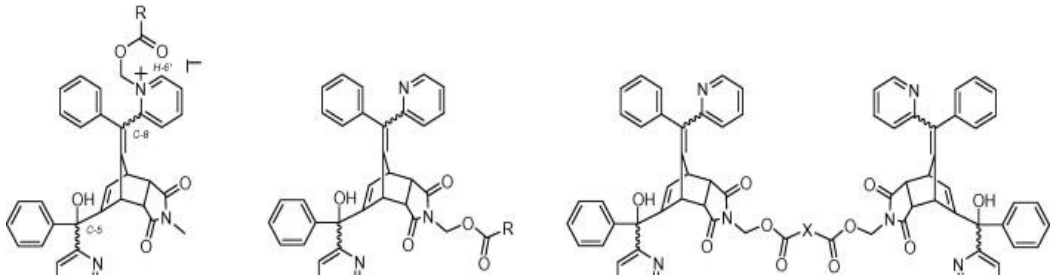
Scaling up and out



Novel technologies

Designer chemicals: Just for rats



ISLAND CONSERVATION

Preventing Extinctions

Bell LABORATORIES, INC.

Novel technologies

DNA-based diagnostics of plant incursions

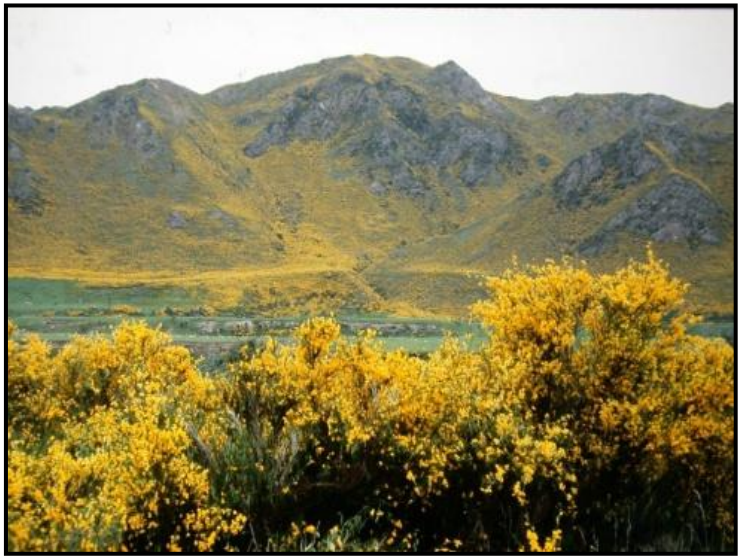
Citizen Science

- Naturewatch NZ: http://naturewatch.org.nz

- Citizen Science Tool
- Aid to biosecurity surveillance
- Supported by MPI with pilot project
- Weed Project: http://naturewatch.org.nz/projects/pest-plants-weeds-of-nz
- Jon Sullivan (Lincoln Uni) or Colin Meurk (LCR)

Games & apps

Multiple threats

- Biodiversity
- Production sector

- Climate change
- Land use change