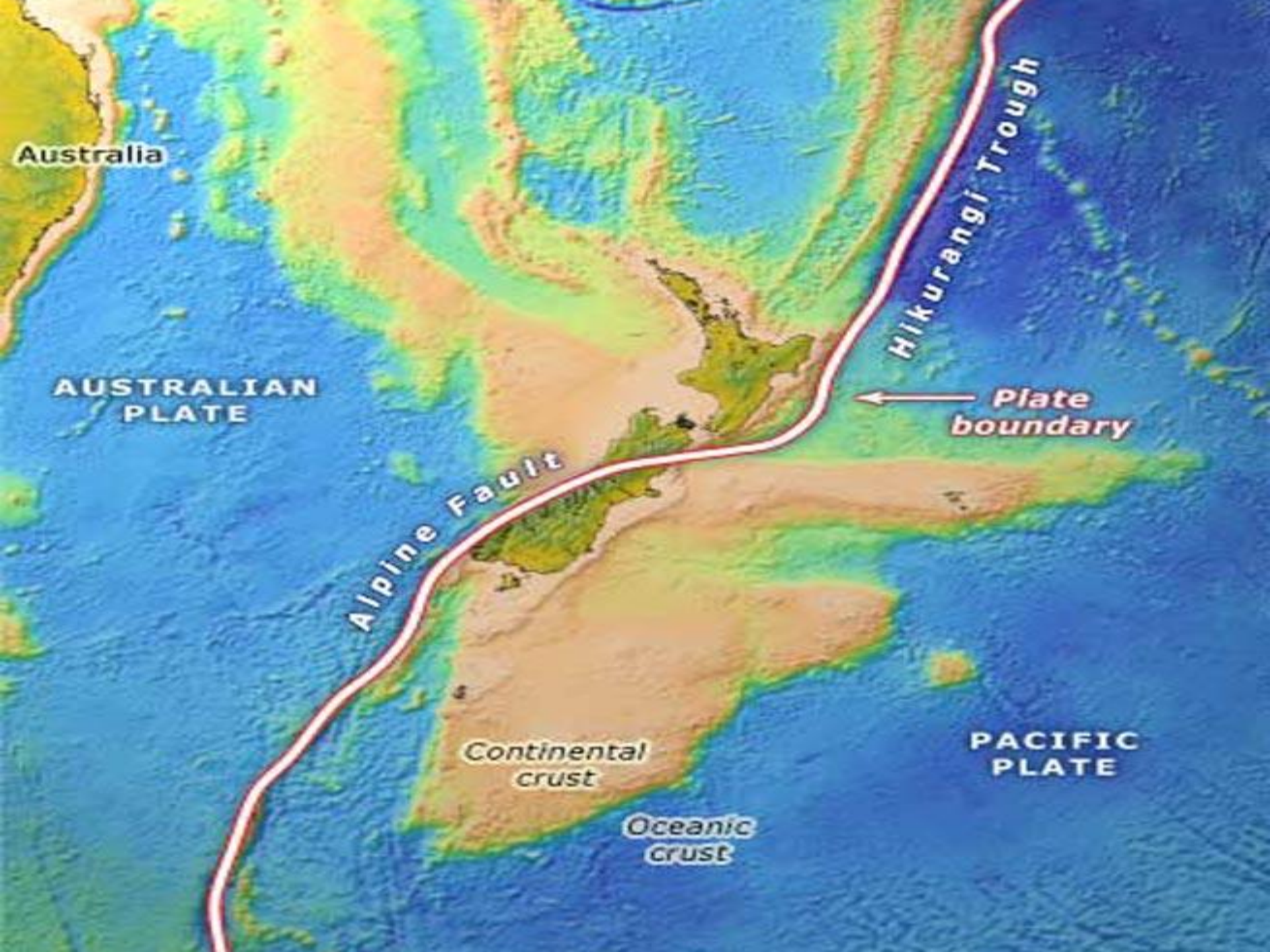
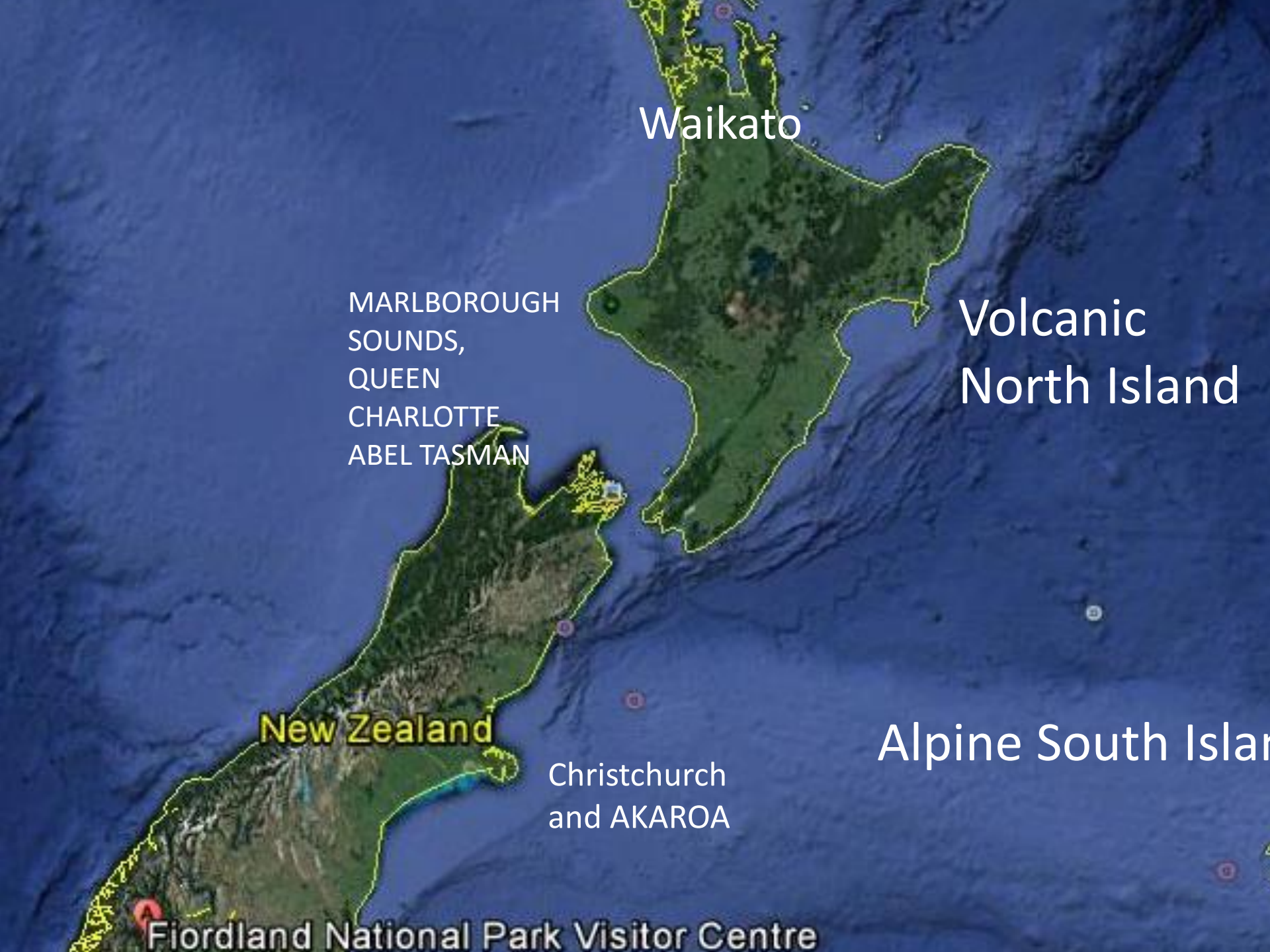
ATEAROA

The last habitable place on earth to be colonized by humans

NATURAL HISTORY AND WARRIORS

- Geography
- Natives
- Dutch 1642; British 1769
- Crown & Chiefs Treaty of Waitangi 1840
- Tours of Fjordland, Akaroa, Marlborough Sounds


Australia
AUSTRALIAN PLATE
Alpine Fault
Hikurangi Trough
Plate boundary
Continental crust
Oceanic crust
PACIFIC PLATE


Waikato
MARLBOROUGH
SOUNDS,
QUEEN
CHARLOTTE
ABEL TASMAN
Volcanic
North Island
New Zealand
Christchurch
and AKAROA
Alpine South Islan
Fiordland National Park Visitor Centre

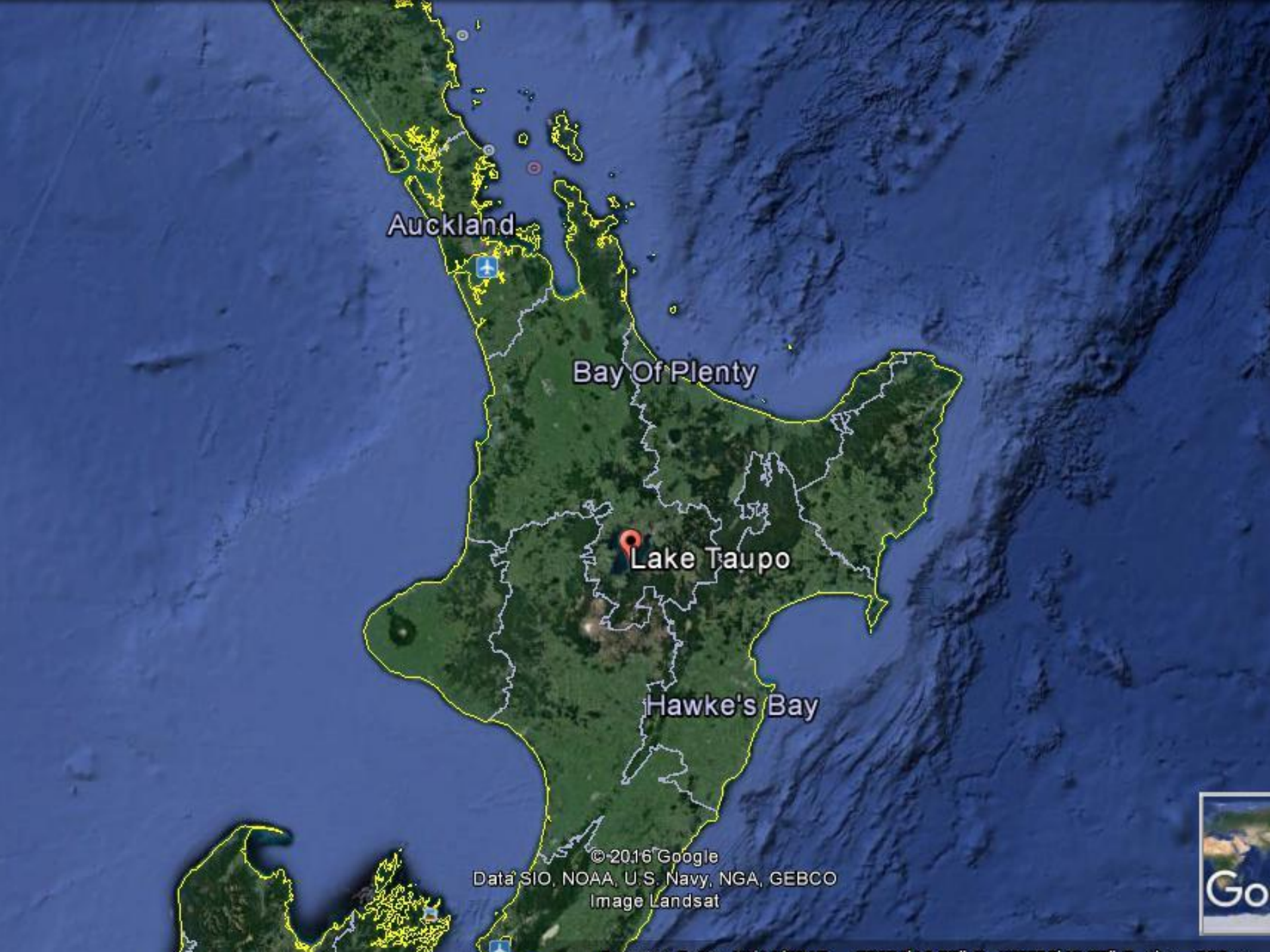

Auckland
Bay Of Plenty
Lake Taupo
Hawke's Bay
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Image Landsat

Lake Taupo
Taranaki
© 2016 Google
Data SIO, NOAA, U.S. Navy, NGA, GEBCO
Image Landsat
Manawatu-Wanganui
Imagery Date: 12/14/2015 39°00'14.27" S 175°22'48.89" E elev 578 m

Abel Tasman
Captain Cook
Wellington
Nelson
Marlborough
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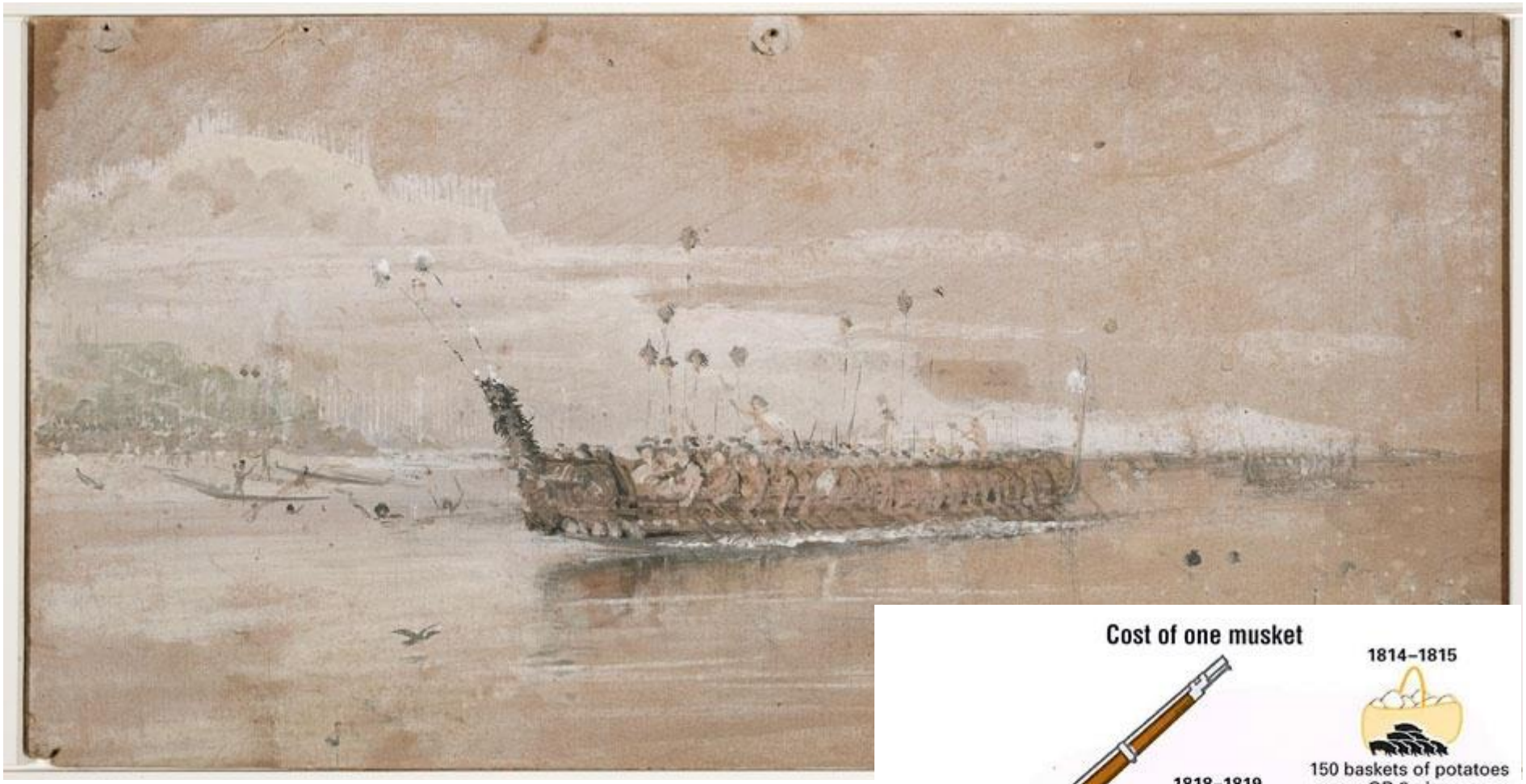
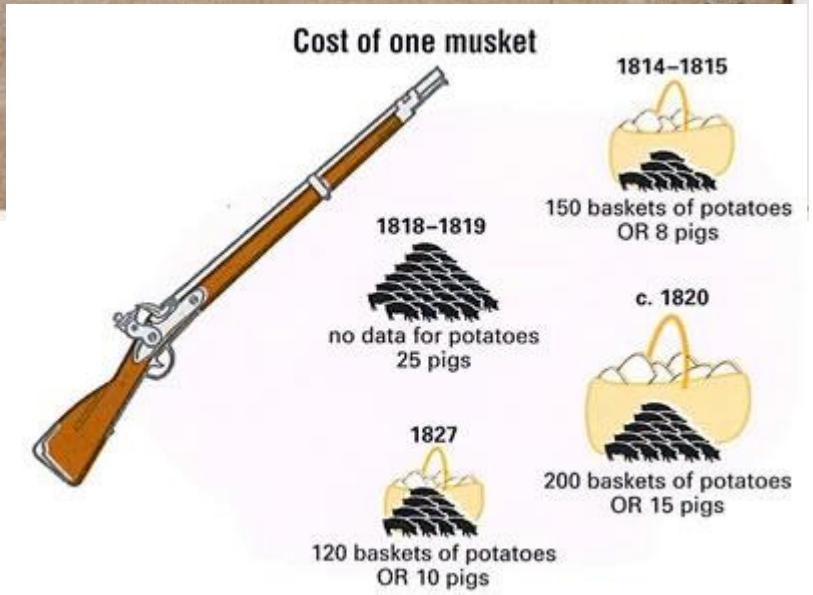
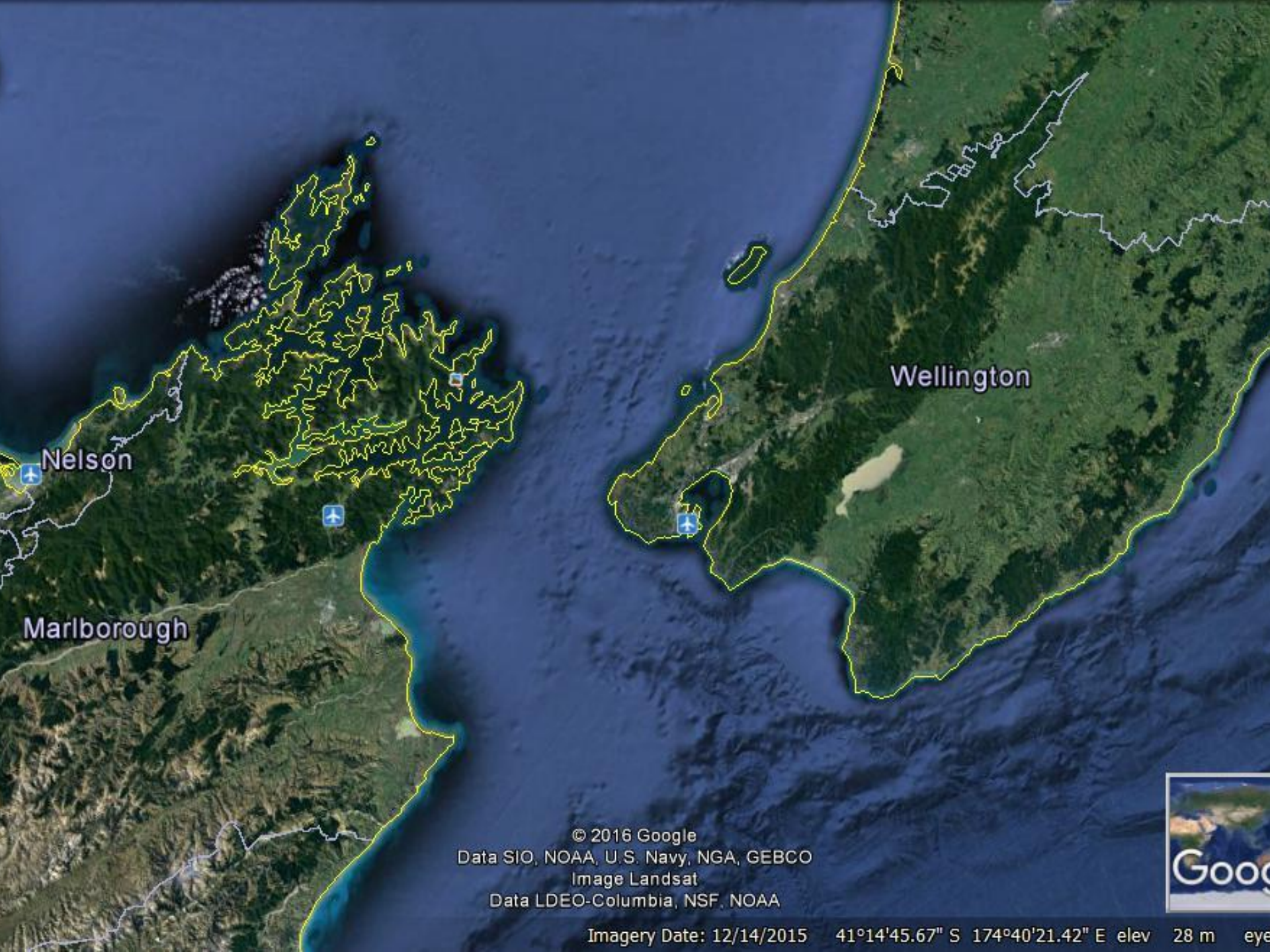
Data SIO, NOAA, U.S. Navy, NGA, GEBCO
Image Landsat
Data LDEO-Columbia, NSF, NOAA
Imagery Date: 12/14/2015 41°14'45.67" S 174°40'21.42" E elev 28 m




Cost of one musket
1814–1815
150 baskets of potatoes
OR 8 pigs
1818–1819
no data for potatoes
25 pigs
c. 1820
200 baskets of potatoes
OR 15 pigs
1827
120 baskets of potatoes
OR 10 pigs

Treaty of Waitangi


Wellington
Nelson
Marlborough
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Data LDEO-Columbia, NSF, NOAA
Imagery Date: 12/14/2015 41°14'45.67" S 174°40'21.42" E elev 28 m

MARLBOROUGH
SOUNDS

Manaaki Whenua
Landcare Research

Walking Poles
$10 each
Manuka Hardwood

Volcanic
North Island
New Zealand
Fiordland National Park Visitor Centre

ARTHUR'S PASS

FJORDLAND

New Zealand
Canterbury
Otago
Fiordland National Park Visitor Centre
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Image Landsat
Data LDEO-Columbia, NSF, NOAA
Southland
Google
Imagery Date: 12/14/2015 44°18'11.43" S 168°56'15.30" E elev 1469 m eye alt 51

Volcanic
North Island
New Zealand
AKAROA
Fiordland National Park Visitor Centre

AKAROA

FZP247

WAIKATO
Volcanic
North Island
New Zealand
AKAROA
Fiordland National Park Visitor Centre

WAIKATO

Sanctuary
Mountain®
MAUNGATAUTARI
Our Vision Kaitiakitanga – Protecting our past for the future

Only 126 remaining
Can live to be over 100

MOV01570.MPG

Dune restoration
Please help by using Access ways

EMAIL
AIRHANDLING
LAMINAR FLOW WORKSTATION
AES Environmental Pty Ltd
BOONDOGGLE?

Peer-reviewed Scientific Journal Publications (May 2013-present):

Phillips, R.L.,Song, B.,McMillan, A.,Grelet, G., Weir, B., Palmada, T., Tobias, C 2016. Revisiting co-denitrification, chemodenitrification and abiotic . di-nitrogen production. Nature, submitted June 21, 2016.

Beringer, J., Hutley, L.B., McHugh, I., Arndt, S.K., Campbell, D., Cleugh, H.A., Cleverly, J., Resco de Dios, V., Eamus, D., Evans, B., Ewenz, C., Grace, P., Griebel, A., Haverd, V., Hinko-Najera, N., Huete, A., Isaac, P., Kanniah, K., Leuning, R., Liddell, M.J., Macfarlane, C., Meyer, W., Moore, C., Pendall, E., Phillips, A., Phillips, R.L., Prober, S., Restrepo-Coupe, N., Rutledge, S., Schroder, I., Silberstein, R., Southall, P., Sun, M., Tapper, N.J., van Gorsel, E., Vote, C., Walker, J., Wardlaw, T., 2016. An introduction to the Australian and New Zealand flux tower network - OzFlux. Biogeosciences Discuss. 2016, 1-52.

Hunt, J., Laubach, J., Barthel, M., Fraser, A., Phillips, R.L., 2016. Carbon budgets for an irrigated intensively-grazed dairy pasture and an unirrigated winter-grazed pasture. Biogeosciences. 13: 2927-2944. Doi:10.5194/bg-13-2927-2016.

Owens, J., Clough, T.J., Laubach, J., Hunt, J.E., Venterea, R.T., Phillips, R.L., 2016. Nitrous oxide fluxes, soil oxygen, and denitrification potential from urine and non-urine treated soil under different irrigation frequencies. J Environ Qual. Doi:10.2134/jeq2015.10.0516

Phillips, R.L., Eken, M.R., Rundquist, B.C. 2016. A framework for estimating spatial variation in grassland structure for hill country landscapes. Hill Country Symposium Grassland Research Series No. 16, 119-126.

Phillips, R., Grelet, G., McMillan, A., Song, B., Weir, B., Palmada, T., Tobias, C., 2016. Fungal denitrification: *Bipolaris sorokiniana* exclusively denitrifies inorganic nitrogen in the presence and absence of oxygen. FEMS Microbiol Letters. 363(4):fnw007. doi:10.1093/femsle/fnw007

Phillips, R.L., Ficken, C., Eken, M., Hendrickson, J., Beeri, O., 2016. Wetland soil carbon in a watershed context for the prairie pothole region. J Environ Qual. 45(1): 368-375.

van der Weerden, T.J., Cox, N., Luo, J., Di, H.J., Podolyan, A., Phillips, R.L., Saggar, S., de Klein, C.A.M., Ettema, P., Rys, G., 2016. Refining the New Zealand nitrous oxide emission factor for urea fertilizer and farm dairy effluent. Agr Ecosyst Environ. 222: 133-137.

van der Weerden, T.J., Luo, J., Di, H.J., Podolyan, A., Phillips, R.L., Saggar, S., de Klein, C.A.M., Ettema, P., Rys, G., 2016. Nitrous oxide emissions from urea fertiliser and effluent with and without inhibitors applied to pasture. Agr Ecosyst Environ. 219: 58-70.

McMillan, A., Pal, P., Phillips, R.L., Palmada, T., Berben, P., Jha, N., Saggar, S., Luo, J. 2016. Can pH amendments in grazed pastures help reduce N2O emissions? - The effects of liming and urine addition on the completion of denitrification in fluvial and volcanic soils. Soil Biol Biochem 93: 90-104.

Phillips, R.L., M. Eken, and M. West. 2015. Soil organic carbon beneath croplands and re-established grasslands in the North Dakota Prairie Pothole region. Environ Manage 55:1191-1199.

Phillips, R.L, A.M.T. McMillan, T. Palmada, J. Dando. 2014. Temperature effects on N2O and N2 production in a New Zealand pasture soil. New Zealand J Agr Res 58(1); 89-95. DOI: http://dx.doi.org/10.1080/00288233.2014.969380

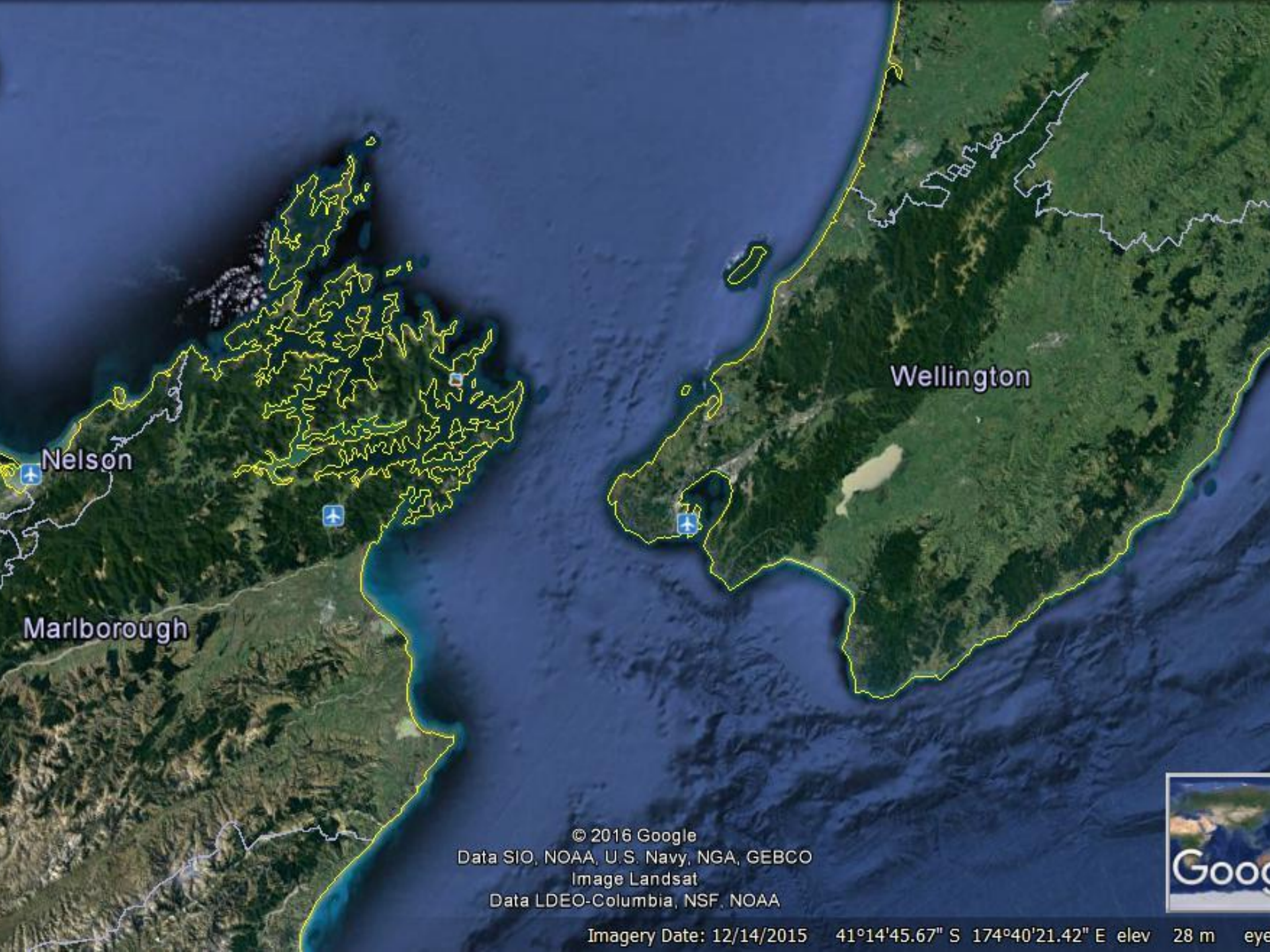
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Image Landsat
Data LDEO-Columbia, NSF, NOAA
Imagery Date: 12/14/2015 41°14'45.67" S 174°40'21.42" E elev 28 m

Waikawa
Whatamango Bay
Waikawa Rd
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6 6 The Anchorage
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https://www.youtube.com/watch?v=AnlFocaA64M