

North of Dargaville

Dune pond near Kelly's Lake (Omamari), NRC Lake No. 251A.



Dune pond near Kelly's Lake. Photo showing the emergent vegetation fringing the pond, set in coastal scrub vegetation. (Photo: Paul Champion 17 September 2018).

| Summary | Dune pond near Kelly's Lake |
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| Surveyed: | 2018 (reconnaissance). |
| Overall ranking: | Moderate: A small pond, within predominantly native dune vegetation, with an entire fringe of emergent and wetland vegetation. The lake has dense submerged charophyte dominated vegetation. |
| Threats: | Access through private property with limited access. The lake is isolated, so the risk of either invasive species introduction or nutrient enrichment is low. |
| Management recommendations: | The pond is in good condition, with no immediate threats identified. Occasional monitoring may be warranted. |

Description

A very small (0.04 ha) pond (1661320E, 6029185N), with an estimated maximum depth of 4 m. The water was slightly brown-stained resulting from the wetland marginal vegetation. Surrounded by a wetland within coastal dune vegetation and fenced from the adjacent farmland. Access is difficult, across private farmland.

Wetland vegetation

There was a contiguous ~ 4 m wide fringe of emergent vegetation bordering the pond, with a wetland margin outside of this. Emergent species included the dominant kuta (*Eleocharis sphacelata*) and lesser amounts of raupo (*Typha orientalis*), *Machaerina arthrophylla*, *M. juncea* and *Schoenoplectus tabernaemontani*. Other species in the wetland included *Machaerina rubiginosa*, *Isachne globosa*, *Ranunculus amphitrichus*, oioi (*Apodasmia similis*) and harakeke (*Phormium tenax*).

Submerged vegetation

The submerged vegetation was dominated by *Nitella* sp. aff. *cristata*, both forming high covers from 1.0 to a maximum depth of 2.5 m. Other species included *Potamogeton cheesemanii*, *Myriophyllum propinquum* and the invasive *Utricularia gibba*.

LakeSPI

No LakeSPI survey was carried out on this reconnaissance survey. However, due to the extent of charophyte meadows present in the lake, it is likely to have been classified in high condition.

Water birds

No water fowl were recorded during the visit.

Fish

One adult inanga (*Galaxias maculata*) was seen during the snorkel reconnaissance. The presence of this fish in the pond is puzzling as there appeared to be no connection with the adjacent tributary flowing east towards Omamari Stream.

Aquatic invertebrates

A single leech (*Richardsonianus mauianus*) was seen during the snorkel reconnaissance.

Endangered species

Inanga (*Galaxias maculata*) are assessed as At-Risk Declining in the 2017 threat assessment.

Lake Ecological Value

An ecological value rating of "7 - Moderate" is assigned to Kelly's dune pond based on the largely indigenous catchment, entire emergent/wetland fringe and charophyte meadows, also including an At Risk Declining species.

Threats

Kelly's dune pond is isolated, so the risk of either invasive species introduction or nutrient enrichment is low.

Management recommendations

The pond is in good condition, with no immediate threats identified. Occasional monitoring may be warranted.