

Kai Iwi Lakes Dune Lakes Galaxias Working Group update

Meeting: Taharoa Domain Governance Committee
Date of meeting: 28 May 2020
Reporting officer: Mark Schreurs, Policy Analyst

Purpose/Ngā whāinga

To update the Taharoa Domain Governance Committee (the Committee) on the work of the Kai Iwi Lakes Dune Lakes Galaxias Working Group (the Working Group).

Executive summary/Whakarāpopototanga

The Working Group last met on 11 December 2019. Notes from that meeting are presented with this report as **Attachment A**. At this meeting the Working Group agreed to next meet in March 2020 to further discuss the results of their research and how they would present these results to the Taharoa Domain Governance Committee in a formal report by the end of 2020. However, by March 2020, progress on the Working Group's research projects had progressed slower than anticipated and it was agreed to postpone the meeting till May 2020. Since then, the outbreak of COVID-19 and the ensuing lockdown have further disrupted the Working Group's progress. Despite this, progress has been made and the Working Group members have kept in touch with updates on their respective projects.

This report provides a summary of the key matters discussed at the 11 December 2019 meeting and progress made since.

Recommendation/Ngā tūtohunga

That the Taharoa Domain Governance Committee:

- a) Notes the report 'Kai Iwi Lakes Dune Lakes Galaxias Working Group update, and its Attachment A.

Context/Horopaki

The DLG (Galaxias sp.) is a small native fish found only in the Kai Iwi Lakes and there are fears its population is declining. In response to this problem, Te Roroa, Te Kuihi, Kaipara District Council (KDC), Northland Fish and Game Council (Fish and Game), Northland Regional Council (NRC), NorthTec and the Department of Conservation (DOC) have formed the Kai Iwi Lakes Dune Lakes Galaxias Working Group (the Working Group). The members of this Working Group are making a coordinated effort to better understand the DLG, its ecology, interactions with other species and what management actions will be successful in promoting its survival.

Discussion/Ngā kōrerorero

The Working Group last met on 11 December 2019. The meeting notes from this meeting are included with this report as **Attachment A**. The next meeting of the Working Group has been postponed due to delays processing samples and due to the COVID-19 Lockdown.

The following is a general update on the Working Group's progress to date.

The Working Group has been undertaking a number of research and monitoring projects, most notably the trout diet study, otolith study and a review of DOC's DLG spotlight monitoring

programme. The Working Group's key projects are focused on better understanding food webs in the lakes, and the lifecycle and population structure of the Dune Lakes Galaxias (DLG).

Sample collection for the otolith study and trout diet study has progressed well with much of the work undertaken by NorthTec supported by funding and equipment from Fish and Game, including the use of their boat. However, delays have been experienced processing samples in the laboratory. This has partly been due to reliance on just a few NorthTec students for gut and otolith analysis as well as laboratory closures at NorthTec and Massey University due to the COVID-19 pandemic. Despite this, the gut sample analysis has been almost completed. The NorthTec students involved have completed their qualifications however Fish and Game have provided funding to employ one of these students to continue processing the remaining samples. This gut sample analysis has been able to progress despite the COVID-19 Lockdown. In addition, Massey University had started radio isotope analysis of some samples, however this work has had to be postponed due to the COVID-19 Lockdown. Radio isotope analysis will recommence when the Lockdown ends. This work by Massey University is part of a national study into trout diet being completed for Fish and Game.

DOC have been reviewing their DLG spotlight monitoring programme. They are intending to amend their methodology to make this monitoring programme more robust. This will include introducing additional monitoring sites.

The preliminary findings of the Working Group's studies are yielding some valuable insights. It appears the DLG are spawning in all months of the year though there may be peaks of greater spawning activity at certain times. The fish are also reaching sexual maturity at a smaller size than previously thought (45mm). Further insights are anticipated as this research progresses.

The Working Group also made the suggestion that Kaipara District Council should monitor the number of vehicle movements in and out of the Domain to assess the level of visitor pressure on the Domain. Kaipara District Council has since begun a monitoring programme to this effect. The first round of monitoring was undertaken over December 2019 and January 2020. The results of this monitoring are summarised in table 1.

Table 1: Kai Iwi Lakes Vehicle Movements - Summer 2019.

	Domain Road	Promenade Point	Kai Iwi Lakes Road
Week 1 (19 Dec - 26 Dec) daily average	523	122	No data
Week 2 (26 Dec - 2 Jan) daily average	1167	140	233
Week 3 (2 Jan - 9 Jan) daily average	798	121	234
Average	829	128	233

This is intended to give an indication of how many visitors are coming to the lakes over what period and if numbers are increasing from one season to the next. By subtracting camper numbers (which are available through the campground booking system) it is also possible to get an indication of day visitor versus camper numbers.

Next steps/E whaiake nei

The Working Group's next meeting will be scheduled after processing of the samples collected to date has progressed sufficiently to allow informed discussion of the findings.

Key items for discussion will include:

- Discussion of preliminary findings;
- Report structure – for reporting research findings and recommendations to the Taharoa Domain Governance Committee; and
- Discussion on whether current environmental monitoring programs are adequate.

The Working Group has the goal of compiling a report on their findings by the end of 2020, however this deadline may need to be revised if the COVID-19 pandemic results in further delays. When completed, this report will give advice on how to best protect the DLG.

Attachments/Ngā tapiritanga

	Title
A	11 December 2019 Kai Iwi Lakes Dune Lakes Galaxias Working Group Meeting Notes