

Welcome!

National Īnanga Spawning Education Programme



National Īnanga Spawning Programme (NISP) for Te Whāriki/Early Childhood Curriculum (ECE)

Introduction

Overall, native fish populations in New Zealand are in decline. Part of the problem is the damage we have done to the spawning habitat of Īnanga, the species that makes up over 90% of the whitebait catch. Unfortunately, the habitat needed for their eggs to survive is often damaged or absent. **Less eggs = less Īnanga!** Likewise, introduced predators (particularly trout) eat lots of the adults and change their behaviour, meaning the Īnanga are not so successful at foraging for food. Why do we care? Īnanga is an important food source for many creatures, including us! **High biodiversity = healthy ecosystem = everyone has lots to eat!** Furthermore, many of the simple actions that can be taken to improve things for Īnanga, can also improve the overall quality of the water in our local environments, making it healthier for us to live by them and use them recreationally.

The National Īnanga Spawning Education Programme (NISP) was created in 2016 by the Whitebait Connection (WBC) and offers opportunities for local decision-making, community involvement, freshwater research and monitoring, to give understanding and inspire and empower community into action. The NISP provides a comprehensive set of resources created to support teachers and students to learn more about Īnanga and how to find, monitor and restore their spawning grounds. The NISP was designed to be delivered alongside the Whitebait Connection's Investigating Freshwater Inquiry Framework that has stages of learning and links to suggested teaching and learning experiences which support inquiry into freshwater environments. The NISP is designed to be used in all levels of the curriculum by teachers and environmental educators, but can also be offered as a stand-alone resource for groups wanting to get stuck in and needing expertise advice.

The NISP links to many key aspects of New Zealand's Early Childhood Curriculum Te Whāriki. The curriculum is underpinned by the key message that children are "competent and confident learners and communicators, healthy in mind, body and spirit, secure in their sense of belonging and in the knowledge that they make a valued contribution to society" (p.5) and makes special reference to the importance of tangata whenua in this journey. The four principles of Te Whāriki Empowerment, Holistic Development, Family and Community and Relationships are woven together with the strands Wellbeing, Belonging, Contribution, Communication and Exploration as key areas for learning and development. Te Whāriki is holistic in nature and will vary in practice from centre to centre depending on the context. When teaching in an early childhood setting it is important to understand the philosophy of the centre, the issues relevant to them in their local community and to establish a relationship with kaiako/teacher and tamariki. Te Whāriki values children having 'agency' and building on their interests. Teaching is holistic and considers the 'whole' child e.g., their emotional and spiritual development. Building relationships and involving the wider family and community are also key aspects when delivering the programme. The centre staff will guide this. Caring for and being responsible for the natural world is a key learning outcome and links to a Māori world view as does children developing working theories about how the natural world works. It is important to recognise that infants, toddlers and young children have different learning and developmental needs. Kaiako will work with coordinators in delivering the programme as each centre will differ such as a mixed age centre or a centre that separates age groups.

Background

The main reason for carrying out this project was that students and community members around NZ seemed to be becoming more and more aware that there were issues with their local waterways, but weren't often involved in the on-the-ground practical science that identifies, quantifies and remedies these issues. We saw that as an opportunity lost – an opportunity to engage the community in meaningful field work and involve them in the restoration planning and action. The result would be a more connected, aware and engaged public, improved whitebait spawning habitat and data on where the sites are, improved water quality and biodiversity corridors, and a set of comprehensive new supporting resources for iwi, educators, schools, community groups, Kura Māori and early childhood centres. We saw through delivery of our pilot project in 2016, that there was indeed a real need for this programme of work, due to the interest it sparked, and the demand we were experiencing in mentoring and supporting other groups to get involved.

We acknowledge that in an ideal world we could be mentoring and guiding groups through this whole process, but we (and similar organisations) cannot be everywhere all the time, and if we can develop resources that meet the needs of these groups we can ensure long-term viability of this programme of work across a broader spectrum of community, especially those that are hard to reach and often not involved in science and technology.

This is a truly innovative project that uses best practice ground-breaking scientific techniques that are sure to excite and engage groups who have fewer opportunities to be involved with science and technology. The scope of the project broadens participants' abilities to engage with science and technology in both a local and national level thus promoting the relevance of it within their own lives, as well as others. This empowers them to take part in the societal debates around freshwater management issues facing NZ as well as directly take part in tackling the issues head on and be involved in the technology that will mitigate these issues moving forward.

The development of this resource has involved expert training sessions and collaborative input from and with inanga spawning site experts such as Dr. Michael Hickford, Kim Jones and EOS Ecology.

We have seen that with the correct approach, this programme of work supports the continued learning of students in early childhood environments. Having the ability to engage with ECE centres with this resource adds value and relevance to this mahi/work. We recognise and acknowledge the need to create opportunity to work alongside ECE teaching staff and the wider community in this work and see this opportunity as creating a much wider impact, efficient use of resources and long-term viability.

Vision

A more connected, aware and engaged public, improved whitebait spawning habitat and data on where they are, improved water quality and biodiversity corridors, and a set of comprehensive new supporting resources in for iwi, educators, schools, community groups, Kura Māori and early childhood centres.

Goals

- *Empowered kaitiaki. Connected, aware and engaged public.*
- *Improved whitebait spawning and adult habitat.*
- *Improved water quality and biodiversity corridors*
- *WBC Coordinators will offer scientific vigour throughout the process and training will be provided to them by way of MTSC's national wananga, training/evaluation visits, peer review forms and online training videos.*
- *Upload of all data onto our National Inanga Spawning database (data on where the spawning sites and fish are as well as the groups engaged in the project).*
- *Ensure that a Māori worldview and Te Whāriki approach is incorporated into programme delivery, by working alongside kaiako and iwi/hapu, and that all cultural considerations are addressed.*

Contributors

- *Dr. Michael Hickford – Marine Education Research Group (MERG), University of Canterbury (UOC)*
- *EOS Ecology – Kirsty Brennan, Bronwyn Gay, Shelley McMurtrie*
- *Mountains to Sea Conservation Trust (MTSCT) – Kim Jones, Soozee McIntyre, Natalie Blandford, Jordan MacDonald, Sophie Tweddle, Jasmine Pirini*
- *Nga Mahi Te Taiao (NMTT) – Amy-Rose Hardy*
- *Bayview Early Learning Centre – Tammy Jensen*

Acknowledgements

- *Department of Conservation (DOC)*
- *Auckland Council*
- *Landcare Trust*
- *Southern Trust*
- *Foundation North*

Feedback

We would love to hear your feedback on how you are using these resources! Please let us know and share your stories with us using the contacts below. It helps us to continually improve what we do and create more of what works!

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Kei te tautokona te Kaupapa Mātauranga Toene Inanga ā-Motu e...



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