Student 6: High Not Achieved

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Inanga In The Uretara Stream

The Uretara Stream (also knownas Uretara River) is located at the Northern end of the Katikati Township, it flows under State Highway 2 and into the Tauranga Harbour. Many different organisms live in the live in the lower catchment area of the Uretara Stream such as whitebait, snails, worms, fish, seagulls, and eels. The Uretara Stream is not a large rive, so it is easily disturbed by human interruption, droughts and floods. This is why the local community must look after this area. 1

The main life cycle in the Uretara Stream is the local inanga population, inanga are a type of whitebait identified by a well forked tail, thin membranous fins, low pectoral fins, small head, mouth and large eyes. It has a bright, silvery belly and commonly reaches between 100 - 110mm in length (the larger fish are most commonly female).

The life cycle of inanga has four stages: Migration, Stream Residence, Spawning and Marine Growth. They are commonly known to migrate downstream once a year, spawn then normally die. Inanga spawn amongst long vegetation (which give their eggs good protection from becoming dehydrated), usually around the upper limit of the saltwater wedge, it seems that the same spawning sites are reused this is why we need to protect the existing spawning areas. 2

The food web is a sensitive chain because if one species at the bottom of the chain is affected then it is most likely going to have a ripple effect and somehow benefit of harm the species further up the chain in majority of cases the species are negatively affected. Inanga are a source of food to many animals such as eels, kahawai, flounder and many other fish and many others, the spawning ground are a vital role in the life cycle so that the food web can be maintained. Inanga themselves have a quite sophisticated feeding habits, preferring a wide range of aquatic organisms and also being partial to terrestrial animals such as beetles, wetas and spiders that is if they come across them. 3

Human interruption is affecting the hatching of the inanga life cycle. They have removed the vegetation where the inanga spawn and made it hard for them to know where to go.

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The environment can change the land surrounding the Uretara Stream such as rain could cause erosion over time or heat that would decrease the rivers water levels. However, humans have caused the most change to the Uretara Stream such as bridges that have been built to cater for the growing population of people but that in turn mean that not just the Uretara Stream is suffering it means that the planet is suffering as a whole.

What can we do to sustain or improve the Inanga spawning ground in the Uretara Stream?

Short term fixes could be to mark the sites, so they can be located again at low tides. Signs could be put up so people don't interfere with the hatching eggs, so the hatchlings can get back into the river to complete their life cycle.
Long term fixes could be to keep stock out of the spawning areas permanently or at the very least during spawning season and educating the community about the inanga spawning grounds being disregarded, it's a fast and easy way to make the people aware so they can actively do something to contribute even if it is something small.

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References

Mitchell, C.P; Eldon, G.A. *How to locate and protect whitebait spawning grounds* MAF Richardson. J; Taylor M.J.*A guide to restoring inanga habitat* NIWA, Series No. 50, 2002.

McDowall R.M. *New Zealand Freshwater Fishes 'A Natural History and Guide'* Heinemann Reed Publishing Group, 1990.