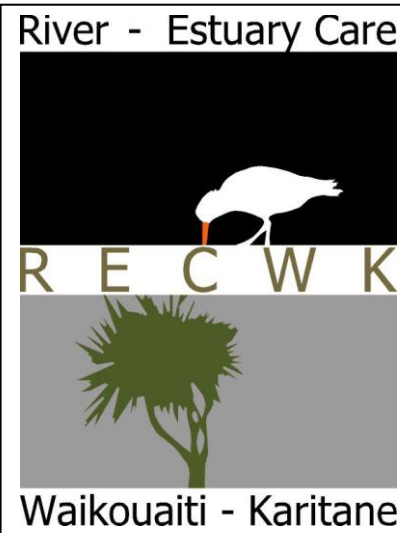


River Estuary Watch

River-Estuary Care: Waikouaiti – Karitane

JUNE 2013

Waikouaiti and Shag Rivers Top in NZ



The Waikouaiti River was third at the inaugural 2013 New Zealand River Awards, which recognise the most significant improvements in river health in the country. The Shag River, won the Supreme Award. This is a remarkable achievement for the communities in both these river catchments.

Otago Regional Council (ORC) chairman Stephen Woodhead accepted the award on behalf of the Otago community and the ORC at a ceremony in Wellington in late November.

The awards, sponsored by the Morgan Foundation, aim to encourage regional councils and their communities to not only work to improve the health of their local rivers, but highlight and recognise work already being done to look after them for future generations.

The judging panel of Professor Gillian Lewis (Auckland University), Dr Clive Howard-Williams (NIWA), and Dr Roger Young (Cawthron Institute) determined the supreme award based on the results of ORC's long-term water monitoring of the Shag.

E.coli concentrations in both the Shag and the Waikouaiti have reduced markedly in recent years because of the sound management practices employed by farmers in both catchments.

"It was a huge pleasure to accept the award, particularly on behalf of farmers and others in the catchment, who have worked hard to implement rules in the Otago Water Plan aimed at improving water quality," Mr Woodhead said.

"With communities, councils, farming, and forestry organisations working together throughout Otago and New Zealand to improve their rivers, we can expect to see more similar examples emerging."

In the Waikouaiti catchment, we estimate that during the last 10-14 years about 20km of river bank has been fenced to exclude stock where access may have caused issues.

The Council acknowledges the work of the Waikouaiti-Karitane:River and Estuary Care group. Since its formation in 1999 this group has planting hundreds of native trees along the river banks and working with local landowners to enhance the health of the estuary.

The awards highlighted how changing practices on individual farms might appear to be insignificant but the cumulative impact across a catchment can be enough to turn the tide on deteriorating water quality.

ORC is looking forward to celebrating with the Waikouaiti and Shag communities in February 2014.



12 Years Planting with the Karitane School



Karitane School and River-Estuary Care:Waikouaiti-Karitane have shared annual planting days for 12 years. Kahlil Farry said that would mean some of the kids who did the planting would be 22 years old now! That's right – and some even older! When we got together this year we celebrated by showing a slide show of photos from the last 12 years, a morning out planting native plants along the edge of a paddock in the Merton Tidal Arm, and a BBQ back at the school. Over the years school kids have potted up seedlings, hunted for white bait eggs, romped after insects in the salt marsh, and planted huge numbers of native plants along the river and estuary. If you are driving south to Dunedin on Hwy 1 you'll see lots of toitoi "flags" showing along the margins of tributaries of the river – that's how you can spot where the school kids and community members have been planting. A great effort and a great legacy. Thanks Karitane School!!!!



Patti Vanderburg
Information/Education/Advocacy Project

Fish & Game Values of the Waikouaiti River

Those anglers in the know hold the Waikouaiti River in high regard as it can produce surprisingly large trout for a modest sized stream. Fish & Game consider it to be a very important local brown trout fishery and national angler surveys estimate that there are approximately 1200-1400 angler visits each season.

The river provides a wide range of opportunities from bait fishing and spin fishing in the estuary and lower reaches to very challenging fly fishing in the middle and upper reaches. Water quality and clarity above the estuary is generally considered to be high, and the clear water provides ideal conditions to sight-fish for large brown trout which cruise the deep holes. These wary fish are generally very hard to catch especially when the river is low and clear and a worthy test of any fly fishers skill. While fish numbers are not high they are often fairly large with an average size of 2-3lb, although 4-6lb fish are regularly caught, so it only takes one to make for a successful day on the river.

Most seasons a fish is caught that approaches or even exceeds the magical 10lb trophy mark, giving the lucky angler a lifetime of bragging rights. It is likely that the large size of some Waikouaiti trout is a reflection of a migratory life history and they have grown to significant size by feeding on baitfish and crabs in estuarine and marine environments. These sea-run trout tend to enter the river in spring following whitebait runs, and from February onwards to run upstream and spawn in clean gravels in the headwaters over winter.

In recent years the Waikouaiti and the nearby Shag River fisheries have been affected by significant flooding events which take a toll on juvenile fish in particular. Fortunately migratory (sea-run) trout assist with the repopulation of these fisheries, and considering the extent of flooding last June both systems are holding surprisingly reasonable numbers of trout at present.

The lower catchment and estuary system provide important habitat for a range of gamebirds, with mallard and paradise duck being most common and important component of hunters' bags. At times large numbers of mallard and paradise ducks can congregate and cause damage to farmers' crops and/or emerging pasture. Harvesting these populations by hunting during a restricted season with daily bag limits helps to keep these populations in check and also provides tasty meals for many local families.

Future Management Challenges

Low flows and abstraction

Like most North Otago streams the Waikouaiti River is subjected to extended low flow periods during the summer period. This can result in the build-up of algal levels, especially if nutrient levels are too high. Historical wetland drainage and loss of tussock country have no doubt reduced summer water yields and it is important to protect remaining tussock and wetlands throughout the catchment for ecosystem health, and also domestic and stock water supplies.

Abstraction for irrigation must be carefully managed to avoid increasing stress on the river ecosystem. While the primary allocation limit is presently fully allocated (under the ORC Water Plan there is no further water available for primary takes) any consideration of secondary allocation would need to be carefully considered to avoid increasing the stress of low flow periods on the health of the river. It is anticipated that the ORC will propose a minimum flow regime (a level below which abstraction other than domestic house hold use or stock water must cease) in the medium term. This will be an opportunity for the local community to get involved and ensure that the proposed minimum flow will protect the health of this important resource for all to enjoy.

Willow Management

While it is important to control excessive willow growth and maintain channel capacity some historic willow management practices resulted in a loss of cover for fish life and increased bank erosion. Thankfully discussions with ORC have been beneficial and future willow works are to be more selective in nature, which will better protect fish habitat and bank stability.

Nutrient and sediment inputs

Back in the 1980's Dr Barry Robertson considered that the Waikouaiti Estuary was badly polluted and noted that the once prolific shell fish beds had been largely killed off. The problem was originally thought to be mostly due to hospital discharges of untreated sewage; exasperated by dairy effluent.

While these direct discharges no longer take place, reclamation of estuarine wetlands is thought to have significantly reduced the flushing capacity of the estuary so organic matter is circulated within the estuary rather than being dispersed by the tides. A bund wall and floodgate was built across Merton Tidal Arm in 1981 and was the last in a series of works that reduced the area of the estuary. The Otago Acclimatisation Society (what is now Fish & Game) spent considerable resources in Environment Court trying to prevent this reduction of the estuary area but were unsuccessful.

To the best of my knowledge the direct discharge pollution sources have been cleaned up, however some concern about nutrient inputs and estuary health remains especially when prolific blooms of sea-lettuce occur. When this algae decomposes under anaerobic conditions it produces toxic hydrogen sulphide. Long

periods without flushing flows can result in the production of large quantities of hydrogen sulphide which smells bad and negatively affects ecosystem and recreational values.

Non-point source pollution inputs such as nutrient leaching and overland run-off are in many ways more difficult to combat than direct discharges. Further to the north, there is serious concern about the health of the Kakanui River estuary. This is directly related to nutrient leaching and sediment and effluent run-off from an intensification of farming practices that have occurred over the last decade.

There is no doubt that the work by the River Estuary Care group to fence off much of the lower catchment will have reduced nutrient and sediment input, as well as providing fishery habitat and vital nesting cover for a range of bird species. And thankfully most farmers in the Waikouaiti catchment have relatively low stocking rates near the river and tributary streams, or they have fenced off riparian buffer zones to reduce nutrient and sediment run-off into the river.

Morgan Trotter
Fish & Game Officer, Coastal Otago

Estuary Planting

The last six months of 2013 saw an abundance of energy directed towards estuary habitat restoration. Volunteer Week saw over 700 native plants added to the estuarine margin out from the southwest side of Coast Road in the area between the railway and Highway One. Another 100 plants were dug in in the same area a few days later by the Karitane School community along with local community members. These combined plantings amounted to a strip approximately three metres wide and nearly a kilometre long. White Bait and Royal Spoonbills were evident along the fringe of the planting area as work progressed. Part of habitat restoration includes improving both Whitebait and bird habitats.

It should also be noted that the shade house located at the Runaka/old school grounds has regained some life. Planting and re-potting efforts of volunteers have resulted in the shade house now providing some of the plants being used in habitat restoration. A tremendous THANK YOU to all of our supporters for your efforts this season.

Joel A. Vanderburg
Habitat Restoration

100 Bird Count

The bird monitoring group met for the 100th time on Sunday 15th to record the types and numbers of our estuary birds. Please contact Allan Kilner if you wish to join in next year.



Godwit, Spoonbill and Stilt—Peter Watson

—Peter Watson

Ki Uta Ki Tai: From the Mountains to the Sea Volunteer Week 11-14 October, 2013

Volunteers planting on site at Hawksbury Lagoon, Sunday 13 October.

Ki Uta Ki Tai: From the Mountains to the Sea volunteer week took place 11-14 October with the four groups in Waikouaiti – Karitane area involved in conservation projects including Kāti Huirapa Rūnaka, River/Estuary Care: Waikouaiti – Karitane, East Otago Taiāpure Management Committee and Hawksbury Lagoon. They welcomed 26 student volunteers from the University of Otago, making this the largest group of volunteers to date.



These students were from three different classes across the university campus including: PHSE427/527 Working with Māori Communities, supervised by Dr. Anne Marie Jackson, lecturer at the School of Physical Education, Sport and Exercise Sciences; MAOR310: Indigenous Development, supervised by Dr. Lyn Carter lecturer at Te Tumu, School of Māori, Pacific and Indigenous Studies; and PACI301: Pacific Bodies, supervised by Dr. Michelle Shaaf lecturer at Te Tumu as well. We were also fortunate to have members of the community and some past volunteers from previous years join us in the field.



Planning for and working with a large number of volunteers was both exciting and daunting, but the positive attitude and enthusiasm of the students made for a fantastic and easy-going weekend. The sheer number of volunteers meant we could get a huge amount of work done, so we were incredibly thankful for the effort and planning put in, that allowed students to come out.

The student volunteers were accommodated at Puketeraki Marae and visited one of the community groups each day in the field. On Friday they were with the East Otago Taiāpure, Saturday they worked with River/Estuary Care, on Sunday they were with the Hawksbury Lagoon and Monday was work with the Kāti Huirapa Rūnaka.

Some of the work the students and volunteers accomplished included planting 800 saplings with River-Estuary Care, cleared and cleaned around a number of the harakeke plants at the marae, returned the fallen rocks at the beach to the rock wall, undertook cockle surveys, cleared and replaced the weed mat at the northern arm of the Hawksbury Lagoon, planted 56 kowhai and 36 rimu, released trees at the old landfill site which were planted in 2010 by previous volunteers, potted up seedlings for the shade

house, weeded the rūnaka gardens and even mowed their lawns! To achieve so much in the little time they had was a huge accomplishment and invaluable to the community. Having the energy of young and fit students was both inspiring and motivating to have around.

Volunteers also had the chance to go out and enjoy what Karitane had to offer with stand up paddle boarding, waka ama, fishing, swimming and even a harakeke weaving workshop. These no cost activities were offered by members of the various communities in appreciation for all the hard work undertaken by the volunteers. It was a reciprocal relationship of giving back to our amazing volunteers, and also their way of giving back to a community, who had supported a number of the students throughout their time at university.



Voices from the Students

“For many of us students, Karitane is a home away from home and a slice of paradise outside of the hustle and bustle of the Dunedin city. Many of us were returning to Karitane for our fourth or fifth visit and knew we would be welcomed with open arms. We were so excited to get out of the city and get stuck into some work outside of our own personal mahi (like the stress of our upcoming exams).”

“The best thing about Karitane has always been the people. You are welcomed so warmly and so openly that you immediately feel like you belong and fit in here. We felt strongly supported over the weekend by the various community groups and well looked after. The morning tea and in-field lunches were amazing! “

“For us, it was so nice to give back to a community that had given so much to us as young first and second year students visiting some years ago. To still come out here, and now be a part of this community is something so special that we will carry with us forever.”

“It was an amazing experience filled with laughter, fun, kaimoana, catching a fish, planting, weeding, clearing and most of all aroha.”



“The volunteer week is surrounded by people who are passionate and who love their environment, people who are so happy and thankful to those who come out to share this passion and love with them.”

“The volunteer week was a way for me to give back to a community I so dearly care about as it has given me some of my best memories and experiences of my university years”

“Overall the week was built on the foundation of supporting and caring for the volunteers, in their support and care of the local environment”



“Was an important learning experience for us. Not only that but it gave insight into how to efficiently and cooperatively work with a community”

“These people have a wealth of knowledge and it was a privilege to be learning off them”

“At the end of it everyone felt enriched, empowered and enlightened”

—Article by Chanel Phillips: Ki uta ki tai Coordinator



Memories of the River

I first visited Karitane in the 1930s when I was staying with my aunty and uncle at their Brinns Point farm. There were a lot of fishing boats then and the harbour was very busy, but it wasn't as nice as it is now. There were no rock walls or mown grassy areas and there were old toilets round at the beach side, on a sand hill. I remember the fish factory and the little fishermen's huts and there were more boatsheds too. The Johnsons had a boarding house near the shop, which was a popular place for people to stay.

I finally came to live here after I got married in the 1950s. Rangi had the farm on Grimness St and we lived there for about 20 years. A lot of his land was tidal and he started putting in the flood gates after getting Ministry of Agriculture advice to make unproductive land suitable for grazing. There was some local opposition to it and he felt conflicted himself – he wanted to improve the farm but he also valued the bird and fish life. In the 1980s Mat put in the humps and hollows, which allowed the salt to sit in the hollows and the grass to grow on the humps. It improved the grass on the humps and the hollows are quite popular with the birds for nesting.

Rangi was always keen on spotlighting for flounder and eels and he used to go up and down the river with a light and a spear. I never went with him but I loved eels – I opened them up and hung them on the washing line to dry before I cooked them.

I'd never been whitebaiting before I was married, but my friend and I thought we'd have a go at drag-netting. We made a net out of old curtains and Rangi made a frame for it and off we went, dragging it between us. Our first port of call was the little lagoon over the other side of the river which the whitebait liked. We didn't have a boat so we just waded over - we were usually up to our waists and sometimes we had kids on our backs. I loved whitebaiting and we went out twice a day if the tides were right. There weren't the big crowds out like you get now – it was usually just us and one or two others. We never used to let on how much we'd caught – we'd just say "Oh -a bit" and keep the lid on the billy. We didn't get huge quantities but we always got enough for us to eat and enough to give away – I loved making whitebait fritters for visitors. I didn't do any line fishing but Rangi fished for trout up at Orbells and other places on the river. Karitane people were neighbourly – sometimes we'd find crayfish or groper on our doorstep and Rangi would drop off geese, mutton or swedes in return.

We never thought of the river as dirty, although it did get sludgy in some areas and we couldn't whitebait there then or we'd get stuck in the mud. I didn't swim in it because I preferred the sea, but the school children learned to swim in the shallow part of the estuary and the school picnics were often at Orbells Crossing. I don't think you would want to picnic there now – there's much less water and lots more mud.

When we moved off the farm we lived by the railway bridge at Merton and, with more time to enjoy ourselves, one of us was always in the river. Rangi virtually lived on the river – he was out every night and caught a lot of flounder and eel – we all loved fish. Occasionally we got Toheroa and pipis from the river but we usually went to Warrington for cockles.

—Joan Ellison

DONATIONS or to become a Friend of the River and Estuary Care: Waikouaiti—Karitane

Should any friends or supporters wish to make a donation or to become a Friend of the River and Estuary Care: Waikouaiti—Karitane. Details available from Brad – 03 4658334, brad126@xtra.co.nz or post donation to 1333 Coast Rd Karitane

River-Estuary Care Waikouaiti - Karitane

Active since 1999 – Incorporated in 2001

Coastal Otago Conservation Award for 2005

Objectives

- To restore balance to Papatuanuku (Mother Earth).
- To have a well informed community about our river and estuary.
- To have our community participating in sustainable resource practices.
- To have a healthy, productive river and estuary eco-system (fishing, biodiversity, general health).
- To promote an understanding of the interrelatedness of our river and estuary ecosystem with adjacent ecosystems.

Anyone interested in supporting the above objectives may join!

Would you like to help with a project this year?

- Newsletter – Hilary Yeoman ph 465 7687.
- Revegetation Project – contact Andy Barratt ph 021 890 048.
- Education, Information and Advocacy Project – contact Patti Vanderburg ph 465 8113.
- Birdwatching – contact current convener Brad, phone 465 8334.

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