

Report from The Styx Living Laboratory Trust

Much has happened in the months since writing my last report.

The inaugural Styx Living Laboratory Trust Annual Address was given by ornithologist Andrew Crossland. Under the title of "More than feeding the ducks" his presentation outlining possibilities for integrating wildlife into the proposed Styx Urban National reserve was informative and well received. Planning is already underway for the 2004 event. Hopefully this time we will have an opportunity to learn more about the fish that inhabit the Styx River.

Establishing the Styx catchment as a place of 'learning and research' moved a step closer with the recent signing of a Memorandum of Understanding by five of the major organisations working within the Styx area. These include the National Institute of Water and Atmosphere, (NIWA), Lincoln University, Landcare Research, Environment Canterbury and the Christchurch City Council. Working together in partnership on this project ensures that there will be a co-ordinated approach to research and learning, and also avoids duplication of activities resulting in maximum use of resources.

While I believe that the signing of this document is an important step, of much greater value is the continuing spirit of goodwill and intent to work together in order to achieve quality outcomes for research, education, learning and resource management within the Styx catchment.

Thank you to everyone involved for your support in helping us get this far.

Lesley Keast

Trustee and Chairperson

Styx Living Laboratory Trust
22 March 2004

Signing Ceremony Memorandum of Understanding

Signatories, left to right:
Richard Johnson (Environment Canterbury)
Dr. Clive Howard-Williams (NIWA)
Dr. Charles Eason (Landcare Research)
Garry Moore
(Christchurch City Council - Mayor)
Dr. Roger Field (Lincoln University)
Lesley Keast (Chairperson, Trustees Styx Living Laboratory Trust)

The Styx Now Has Its Own Website



What makes a good website? The answers to that question are likely to be as varied as the people using the internet.

Some would say, "attractive to view", others would suggest "speed", while yet others would want to be assured that the information they are looking at is accurate.

When a team first began working on the Styx website in November 2003 these were only some of the issues that needed to be considered. A mountain of information along with questions such as, at what point should the site be made interactive, were all issues that had to be considered and agreed. As anyone who has ever designed a site will confirm, there are many features that need to be kept in balance. The first step taken was to construct a site plan. Once that had been completed it became obvious that developing the site in three separate stages was the best way to move forward and the writing of Stage One commenced.

Stage One comprises general information regarding the Styx Project, the 40 year Vision for the catchment, how the Vision can be implemented, along with details of various mini-projects within the main project, back copies of the Styx newsletters, and contact names and details of people involved.

There was much relief and celebration when this stage was completed and "went live" on 15 June.

Work on Stage Two commenced with the scanning of both City Council and Consultants' Reports on many aspects of the Styx project, catchment, river and related topics. The aim is to make

these reports widely available and able to be downloaded, particularly for use by students in schools and tertiary institutions.

Stage Three will examine each of the 5 inter-related visions for the Styx environment in detail. Such topics as design and management philosophies, key actions, stories of the land and research projects will all be outlined in depth.

Since its inception in 1998 one of the special features of the Styx project has been the emphasis given to design. Whatever the scale, from the smallest of brochures, to several hectares of public reserve, the design philosophy applied to each has endeavoured to reflect some of the unique aspects and moods of the Styx catchment. This approach is also reflected in the artwork featured on the web pages.

Has the team succeeded in developing a user friendly and informative website? By visiting www.thestyx.org.nz you can decide the answer for yourself.

Feedback about this site is welcomed and may be emailed to Stephanie K Humphries at stephaniek@clear.net.nz

Hidden Treasure – Janet Stewart Reserve

It is likely that the birds of our city know more about Janet Stewart Reserve than do many of the human residents of our city.

Situated on the north east corner of the intersection of Marshland and Lower Styx Roads over 16,000 vehicles speed past this spot daily. The occupants of these vehicles would do well to slow down as they cross the Styx Bridge for a view of this haven of peace and tranquility.

The Reserve runs parallel with Lower Styx Road for approximately a kilometre and covers an area of 1.9 hectares.

Welcome swallows, shining cuckoos, and fantails join wetland fowl feeding on the abundance of insects and fish living in and around the quiet waters of the ponds in the reserve. Pied stilts, a white faced heron, and a bevy of New Zealand scaup join with cormorants and mallards in finding this environment an attractive 'place to be'.

A bus driver, having abandoned both his bus and his shirt, sits in the sun on the jetty munching his lunch.

It has not always been this peaceful.

The neighbourhood stirred at 4 am when the cows began to head for the milking shed. Their hot breath made patterns in the chilly air as they were accompanied by a hard working woman whose day, like theirs, began at this hour. Husband John joins her and together by 6 o'clock they have the milk ready in cans for him to load on to the horse-driven cart for delivery to homes in the Papanui, St Albans, Shirley and Richmond areas. That's the way things were done in the 1920's. Meanwhile Margaret Jane Stewart, or Janet as she was commonly called, returned to the house at 119 Lower Styx Road to get seven children ready for school.

In the mid 1940's one of her now grown children, Edmond, purchased a nearby property known today as Janet Stewart Reserve. At that time it contained 5 acres of rush covered low lying land, prone to flooding. Originally a four-room cottage stood on the

property and over time several of Eddy's brothers and sisters were to live there clearing the rushes to make way for crops of onions and mangold (a type of beet used for cattle fodder). Eventually the cottage was demolished and the area was sown out in grass. For thirty years this was used either for grazing cattle or making hay.

Edmond never married and when he died on 10 July 1993 he willed his property to the Christchurch City Council on two conditions. The first condition was that the land be developed as a public reserve. The second was that the reserve be named in honour of his hard working mother, Janet Stewart.

All planning, consents, and earthworks were completed by Saturday 14 September 1996 allowing the naming ceremony and the first community planting day to be held. Mr John (Jack) Stewart, the oldest son and his sisters, Lily (Mrs Marsh), Ethel (Mrs Kidd), and Joan (Mrs Gardyne) were there to endorse their brother's bequest to the city and to pay homage to their mother.



Members of Janet Stewart's family taken at the first Planting Day held at Janet Stewart Reserve. Left to right: John, Lily, Ethel & Joan.

Few traces of the early days now remain at the Reserve, except for one – a large European Ash tree standing not far from where the original cottage was sited. Jack Stewart, who recently celebrated his 84th birthday, explains that in the days prior to home refrigerators, he remembers planting a sapling at this exact spot from which to hang a meat safe – and the sapling grew.

Janet Stewart Reserve 2003



If you are in one of those 16,000 cars that daily speed past the Reserve, what about stopping for a while and like the lone bus driver, immerse yourself in the tranquility of this place. There is no guarantee that you will come away refreshed, although many do. One of the benefits of this bequest, apart from it being a thoughtful and fitting tribute from a loving son to his hard working mother, is that it can be shared by us all.

Have you visited Janet Stewart Reserve yet?



Janet Stewart
1896 -1957

Report from the Guardians of the Styx

The Guardians have again been busy with some members taking part in planting days in August 2003 on Marshland Road and at Styx Mill Conservation Reserve in September and again in May 2004. On "Clean up the World Day" in September 2003 a few members also cleaned up around Janet Stewart Reserve. Our usual monthly speakers programme continues, and on occasions we have trialled "mini speaker" nights where two or more speakers speak for shorter periods of time on different subjects.

The hot topic at the moment is the drying-up of the headwaters of Kaputone Creek. This occurred more than six months ago, seemingly at the time of earthworks being carried out on one of the new subdivisions beyond the end of Englefield Road. The City Council has proposed a study of the problem in the 2005-06 year, but the Shirley-Papanui Community Board is applying pressure for the funding to be found in the year beginning in July 2004. Guardians of the Styx fully support this action, and are endeavouring to obtain hydrological data to gain a better understanding of the problem.

In May a submission to the Council's Parks, Gardens and Waterways Committee was made outlining our concerns about the timing and maintenance of plantings in the area. Particular emphasis was placed on the loss of several hundred trees in the Styx Esplanade adjacent to the development at Redwood Springs apparently killed by contractors' vehicles regularly running over them.

In March 2004 two computers, purchased as a result of fund raising by the Guardians, were gifted to the Styx Living Laboratory Trust.

Dennis Hills
Chairperson



Rangers' Report

Arbor Day Planting

Recently the local Styx Civil Defence Group joined with members of the community to take part in the City Council sponsored Arbor Day planting. Fifty people took part and made short work of planting some 500 plants. This now completes the section of walking track along the Styx River from Heyders Road to Spencerville Road.



Mute Swans on Styx Mill Basin Ponds

303 Radcliffe Road

Earthworks are underway to naturalise the Radcliffe Road Drain, linking it to Kapatone Stream. Further details and concept drawings are contained in Issue 7 of the Styx Newsletter dated August 2002 now available on the website at www.thestyx.org.nz.

Styx Mill Conservation Reserve

Community Planting Day
The annual community planting day at Styx Mill Conservation Reserve was held on Sunday the 2nd May 2004. Over forty people turned out, and the fantastic weather helped to contribute to the enjoyment of the afternoon. Trees For Canterbury again donated close to a thousand native plants. Additionally this year they provided a fifty-dollar plant voucher won by an American student, currently studying at Lincoln University. Once all 1,000 native trees were securely established in their new home, a BBQ was held and the afternoon declared a great success.

▪ Dog Park

There has been an ongoing concern about the water quality at the Dog Park. Signs have been put up to notify dog owners of the potential health risks that may be present in the ponds. However as some dogs did not appear to be too skilful at reading, the pond in the large Dog Park has now had to be fenced.

▪ Weed Control

The Styx Mill Conservation Reserve has a programmed weed management plan developed by Christchurch City Council botanist Kate McCombs. The first priority weed to eradicate is old mans beard. This weed has already been removed from the reserve but surrounding properties may have some growing, so a co-ordinated eradication is required. It is very important that this weed is controlled as it grows very quickly and can eventually kill trees. If you are not familiar with what old mans beard is, or what it looks like, check on the Environment Canterbury website. At this time of the year it is easy to spot as it is currently in flower.

▪ New Visitors

A family group of two adults and three juvenile Mute Swans arrived on the Styx Mill Basin Ponds between 8 and 14th April. These behave like wild birds and are probably from the wild population at Lake Ellesmere and Coopers Lagoon rather than escapees from Peacock Springs. Mute Swan are the only introduced species in NZ that are fully protected by law. Unfortunately the two Black Swans already resident with their family of small cygnets on the ponds are not conversant with the protection law and have been giving the Mute Swans non-stop harassment since they arrived. Apart from this the Mute Swans seem to be enjoying their stay at Styx Mill but it can be expected that they will move on again by spring.

Contributed by
Arthur Adcock, John Parry & Andrew Crossland
Park Rangers

Editorial content

This newsletter is compiled, printed and distributed as a service to the community by the Greenspace Unit of the Christchurch City Council.

If you have any suggestions, comments, or enquiries regarding subjects mentioned in the newsletter, please contact:

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Welcome to this edition of the Styx Newsletter.

The Styx Newsletter is distributed as widely as possible through libraries, Service Centres and other similar outlets. If you would like to receive a personal copy it can be mailed directly to you. Contact details are shown on the back page under the heading Editorial Contact. Back copies can also be viewed on the Styx website at www.thestyx.org.nz.

Topics such as fish, reserves and websites do not appear to have much in common. However, taken within the context of the Styx project it is hoped you will find these features enjoyable reading.

Styx River Surprises



A male upland bully, smaller than the one caught in Regents Park waterway © 2003 S. McMurtrie

Have you noticed those old, straight, boxed drains around Christchurch are slowly disappearing? Restoring our waterways to a more natural state has been a deliberate process and, judging from feedback received, it seems that most human residents prefer the new look. But what about the aquatic animals that live in these waterways; are they responding well to this change?

The short answer seems to be, "Yes, eventually, but it depends".

As people have different preferences, so too do aquatic animals. Their preferences are based on such features as water depth, speed, and the nature of water flow. To a human eye a restored channel with variable depth and water flow will usually appear more interesting and attractive. This type of channel is also able to support a wider range of fish, and aquatic invertebrates. Plants play an important role too, as they provide food for invertebrates, and give shelter and protection to shy native fish.

Time is also a factor: time for the riparian and aquatic plants to grow, for aquatic invertebrate to colonise, and for the invertebrates to establish

ecological links with plants, both above and below the waterline. Time is also needed for fish communities, often disrupted during the restoration process, to settle into their new habitat.

The "it depends" part of the answer needs explanation. Creating an ecological utopia is a great start, but if aquatic creatures are unable to get to it, the restored habitat will fail to fulfil its ecological purpose. There is growing evidence that invertebrate communities do not find it an easy task to naturally colonise restored habitats when they are within an urban setting. For example, adult aquatic insects fly very close to the water and for them a culvert presents a problem. Culverts are a problem for fish also, as most of our native fish require access to the sea in order to complete their lifecycles. Just one downstream weir, or long pipeline, can deny them access to an upstream habitat, whether it has been restored or not. In some cases however, poor access is a good thing, because it stops fish predators like trout and big eels from reaching rare and interesting native fish that do not migrate.

Successful outcomes are achievable and often this is where the surprise element occurs.

A classic example of this is one of the first joint initiatives between the developer and Christchurch City Council where, in accordance with the newly introduced Resource Management Act, ecological and aesthetic values were given serious consideration. Regents Park open waterway was constructed during the early 1990's by partially diverting a drain running alongside the Main North Railway line.

Downstream from a created pond designed to act as a sediment trap, the diverted waterway runs through an attractive tree-shaded gully of

overhanging ferns. In this stretch of waterway some of the largest upland bullies have been discovered. Found only in New Zealand, upland bullies are an endemic non-migrating species that usually grow to about 80mm in length. The surprise came when one specimen captured in this fern-shaded area measured a whopping 112mm. Others nearby were found to be almost as large. Upland bullies this size are very rare, and this fish is still the largest upland bully recorded on the New Zealand Freshwater Fish Database.

Why are the upland bullies found here so big? It is likely the answer lies in a combination of reasons including the provision of a silt-free stony habitat, a shortage of predators, and a lack of competition for food and space. These factors add up to a relatively isolated haven for these colourful native fish.

The Regents Park site illustrates that with robust planning, waterway restoration can have excellent ecological outcomes and provide a few surprises along the way.

Contributed by Mark J. Taylor
Aquatic Ecology Limited

Coming Events in The Styx

29 August Sunday	1-3pm	Annual Community and Family Planting Day
19 September Sunday	1-3pm	Clean up the Styx Day

For location of these events and confirmation of times please contact:
Arthur Adcock Tel 941 7440 or 027 226 7801

September **Styx Living Laboratory Trust Annual Address**
Guest Speaker –
Scientist Bob. McDowell Fellow of the Royal Society

October **Season opens for Styx River Tours - From "Source to Sea"**
Group bookings only

For further details relating to these activities please contact:
Stephanie K Humphries Tel 342 9513 or email stephaniek@clear.net.nz