Carp captures at a glance:

Lake Sorell

Jan. – March 2012 (Total)	Adult/Juvenile	Total 1995 to present
3833	**0/3833**	**32439**

Lake Crescent

Jan. - March 2011 (Total)	Adult/Juvenile	Total 1995 to present
0	**0 - 0**	**7797**

Overview

Lake Sorell

The fish down of sub-adult carp population continued from January through to March with the removal of over 3000 fish. Gill nets were accountable for the majority of these captures. In almost all instances the gill nets were deployed around a tracker fish or a group of tracker fish and the electro-boat was used to herd the fish into the nets. Occasionally gill nets were set in areas where no tracker fish were present and although some captures were made this method of "blind" fishing was not as effective as targeting tracker fish.

The carp team is continuously looking for new and/or improved methods of effective carp capture and this summer was no different. A method known as the Danish Seine was trialed. Seine netting has been a standard technique with the program using beach seines for quite some time as an effective shallow water targeting tool. The Danish Seine, on the other hand, is a completely different method and requires the use of a vessel. The method can be compared to trawling in the sense that the net is towed through the water herding fish into the "cod-end". The difference is the gear is set behind a target (tracker fish) in a semi-circular fashion and towed across its path.

To help the carp team trial this method Chris Stapleton from Baits Plus Nets was consulted to share his extensive knowledge and skills in Danish seining. Chris designed the original net and over a three day period demonstrated the correct technique for deploying and retrieving the net as well explaining every aspect of the method in great detail. Despite catching other species no carp were captured. Further refinements are being undertaken to improve this technique.

The carp team is also currently testing the use of burley as a form of attractant for carp in Lake Sorell. Two automatic fish food dispensers were purchased and deployed in the lake one in a shallow marshy area and the other on a rocky outcrop overlooking a shallow drain. These feeders dispense food using a timer and can be set to feed at any desired intervals. A mixture of high protein chicken food and corn is used which is a formula proven to work on carp by scientists in New Zealand. The 15 tracker fish within the lake are used as an indicator to determine whether the burley is successful in attracting carp. Using burley as a form of attractant was originally trialed in Lake Crescent with little success and so far results in Lake Sorell are showing the same with carp having little interest in the burley. There are many factors that contribute to the effectiveness of burley and these will continue to be tested in the coming months to give the carp team a better understanding of how and when using burley can be effective.

The annual, post spawning period, juvenile carp fyke net survey was undertaken between the 19th to the 23rd of March. A total of 70 fyke nets were deployed around Lake Sorell in selected areas to ensure a diverse range habitat where covered and to guarantee the survey replicated the previous year's survey. In conjunction with the fyke net survey extra sampling was undertaken using back-pack shockers to check areas not suitable for fyke nets. This included drains and shallow marshy areas which provide safe habitat for young of year carp. This survey is designed to target juvenile carp <50mm to ensure there was no spawning events earlier in the season. From the survey there is no indication of any new carp recruitment.

The annual golden galaxiid fyke net survey was also completed in conjunction with the juvenile carp fyke net survey in March. This consisted of 24 fine mesh fyke nets set in 6 selected locations around Lake Sorell. The nets fish for one night only and are then removed. The survey showed that the galaxiid population remains in a healthy condition.

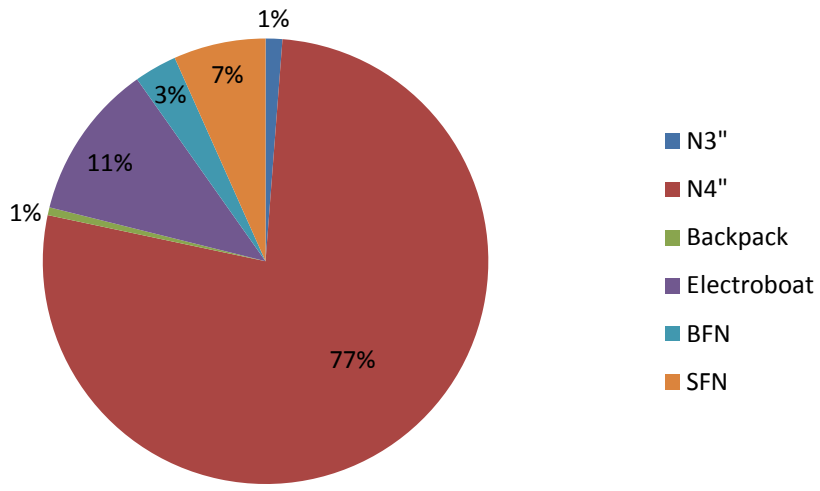

Figure 1: Percentage of carp caught by method for the period of January to March 2012.

Lake Sorell Population Estimate

803 juvenile carp were double tagged and released back into the lake in early January. A two day mixing period was allowed before the recapture process began on January 5th. Over the rest of January, February and March, 3030 sub adult carp were caught by a range of methods (gillnetting, fyke netting, seine netting, backpack and boat-based electrofishing), of which 95 were recaptured tagged fish from the initial release. There were 56 sampling days which were analyzed using a Reverse Schnabel Estimator. The result yields a figure of 23891 juvenile carp minus the 3030 removed during the recapture process which indicates 20861 juveniles left in Lake Sorell. This is an estimate with an error margin of approximately ±25% and indicates a 2009 recruitment event of over 50000 new carp.

Figure 2: Tagged carp recovered as part of the mark-recapture.

Lake Crescent

The Lake Crescent juvenile fyke net survey was conducted between the 13th to the 16th of March. A total of 50 small fyke nets were deployed around the lake. Each fyke net site was specifically selected to ensure the survey covered all the different habitats within the lake and replicated the previous year's survey. The nets were deployed on the 13th and recovered on the 16th and were checked daily. No carp were captured. In conjunction with the juvenile survey 25 small mesh fyke nets were also installed in specific locations around the lake as part of an annual golden galaxiid survey. These nets only fished one night and were removed on the 14th. Large numbers of galaxiids were captured and no carp were found. Further sampling was conducted during this time using back pack shockers. The majority of this sampling was undertaken in thick marshy areas and small drains where fyke nets were not suitable. No carp have been captured in Lake Crescent since 2007.

Figures 3-4:Golden galaxias from recent survey.

Water Management

The Carp Management Team (CMT) record lake levels and water release data when appropriate and store all data accordingly. Figure 4 represents historical lake levels.

Table 1. Water Release data (Oct – Dec 2010)

Month	Lake Sorell release (ML)*	Lake Crescent release (ML)
January	-	1490.3
February	-	1176.8
March	-	813.8
TOTAL	**-**	**3480.9**

* Note: There is no continuous flow monitoring of the Lake Sorell release. Only spot checks are done.

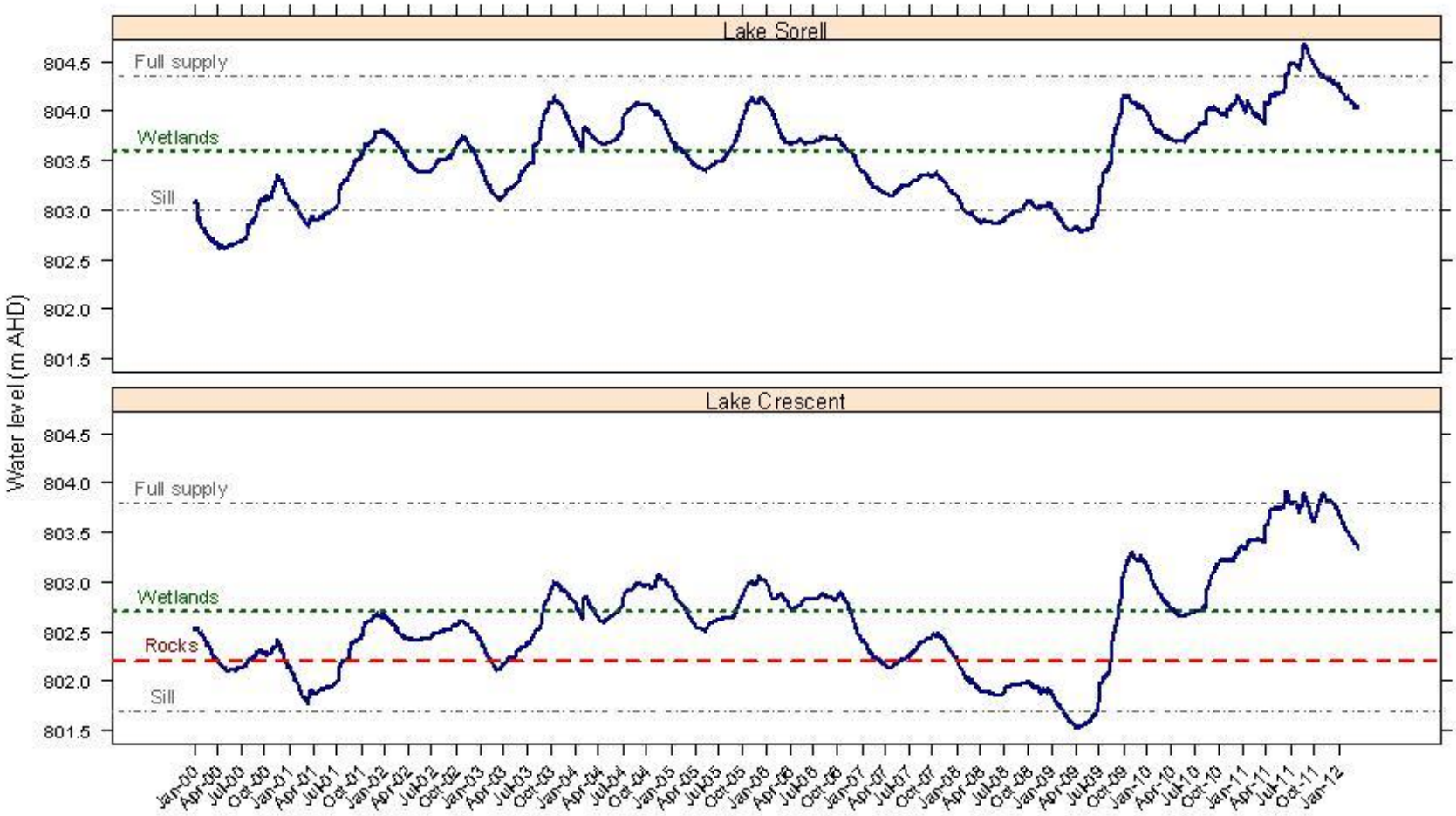

Figure 4. Historical lake levels (Jan 2000 – Current)