

# Inland Fisheries Service Report

## Anglers Alliance Meeting

May 3 2015

### **Hot Topics**

#### **Trout Weekend**

TW15 will be held on Saturday 16 & Sunday 17 May 2015 from 10am – 3pm daily. At around 1pm on the Saturday Deputy Premier Jeremy Rockliff will be drawing the winner of the angling licence promotion Ford Ranger

#### **Woods Lake – Low Water Level**

The lake level in Woods Lake has been falling steady and is currently at around 2 metres below full supply level. The Service is monitoring this situation closely and has been in contact with Hydro Tasmania and water will be released from Arthurs Lake if required.

#### **Brushy Lagoon Access**

The IFS is investigating options to repair the bridge Brushy Lagoon Road. As this bridge has had a 10 tonne limit imposed on it due to the condition of the structure. At present this is prohibiting the stocking of the lagoon using trucks.

#### **River Derwent Angler Access Launch**

The River Derwent Anglers Access project has been completed. The project will be officially launched by the Deputy Premier, Jeremy Rockliff, on the 4<sup>th</sup> May 2015 at new Norfolk. The River Derwent Brochure will be available from the IFS and AAT websites and in hard copy from this date.

Initial planning for the South Esk Anglers Access project has commenced.

#### **Liawenee subdivision**

The Liawenee subdivision process is almost complete. With the redundant laboratory building and one vacant block being listed for sale subject to the issue of title. This will not affect IFS or Police operations.

### **Sandbanks Creek Fish Trap – Chris Wisniewski**

With planning and approvals undertaken works commenced in building a new spawning trout trap at the green field site of Sandbanks Creek, Great Lake on Thursday 12 March. The existing track was upgraded and extended down to the creek. Flow in the creek was low enabling the 30 metre long anti-jump weir to be constructed without too much trouble and the trap was excavated and built in quick time. Precast wall panels were used in the fish trap and weir to speed up the building process. The construction was completed and the area was backfilled on 31 March. Screens have been ordered and the first run of brown trout is expected by early May.



Fish trap under construction – Photo Neil Morrow

### **Developing a Southern Fishery – Chris Wisniewski**

A draft report has been produced and the findings presented to IFAC in February. The report details the evaluation process used by the steering committee to assess the locations provided by consultants Macquarie Franklin

#### **Potential dam sites**

Dam sites were located using the LIST mapping layers identifying the Full Supply Level (FSL) and potential wall position.

Also considered was detail on:

- Water availability using the Water Assessment Tool (WAT)
- Dam wall earthworks including wall positioning
- Storage volume including storage capacity (ML), surface area (m<sup>2</sup>), maximum and average water depth.

The initial desktop assessment identified 11 dam sites that are within 90 km's from Hobart or approximately within one hour travel time by car. The dam sites range in capacity from 2,000 ML to 12,000 ML with surface areas ranging from 89 ha to 302 ha.

The working group then requested that the consultant evaluate a further 5 sites. After this detail was provided the working group evaluated each site based on the following criteria:

- Distance/proximity
- Size/capacity
- Surface area
- Topography
- Water quality
- Water availability
- Pest fish
- Likely cost based on dam size, spillway construction and land purchase

From this assessment the top three sites were prioritised and site visits were undertaken.

- Esperance Plains (SW Geeveston)
- Puzzle River (West of Huonville)
- Arve River (West of Geeveston)

Despite ranking highest on the selection criteria none of these sites were without problems and the cost to construct is considered high and without external funding are not within the current means of IFS.

## **Other Options**

### **River Derwent**

The River Derwent is a major freshwater fishery on the doorstep of Hobart. The river provides a range of angling opportunities and experiences. It has roads and services along its length. It has a consistent angler base of around 2500 and is regularly the number 1 river fishery in the State. The River Derwent Angler Access Project has recently been completed.

There is an opportunity to work with partners and seek community funding to roll out an extended Angler Access Project over time. Commencement of an extended project could be in 2016.

**Lake Dulverton** – This existing site is being assessed as a possibility to purchase water out of the Midlands Water Scheme. A paper was developed and provided to the April IFAC meeting. IFAC has asked that further investigation into the Lake Dulverton proposal is undertaken.

## **Anglers Access – Neil Morrow**

### **Road Maintenance**

The Service recently spent \$30 000 potholing and grading Gunns Marsh Road from the Cowpaddock to Tumbledown Creek and the Woods Lake Road

### **Farm dam stocking for public fishing**

IFS Staff met with the Penguin Anglers Club stocking committee in March and as a result site visits to a number of Farm Dams have been undertaken by the IFS between West Ridgley and Sassafras. Stocking of some of these dams will result from Licence Agreements being entered into. Signs and stiles have been installed at dams stocked in December 2014 at Greens Creek Road and Thirlstane.

### **Recreational Boating fund and associated projects**

Work is progressing on the Lake Leake boat ramp. Due to a funding shortfall for this project MAST has agreed to transfer funding for the Little Pine Lagoon project to Lake Leake. Further planning and consultation for Little Pine Lagoon will be undertaken before any further funding application is submitted



Lake Leake boat ramp upgrade – Photo Jim Caulfield

## **Business Clean Up Australia Day**

Two teams of IFS staff and a number of volunteers participated in Business Clean Up Australia Day on Tuesday 24<sup>th</sup> February. The focus this year was the angler access sites on the River Derwent. A significant amount of rubbish was removed from sites between Green Island and Gretna.

## **Licensing and Administration – Tony Wright**

### **Angling Licences**

Total angling licences sold to date and have been received back from agents are 26 158. Analysis of revenue for the same period indicates a 2% reduction. The total licence figure will be finalised by July.

Five season licence sales remain strong with a further 466 being sold in 2014/15. The total of five season licences sold now stands at 1668.

### **Trout Weekend 2015**

There will be free entry and something for the whole family at Trout Weekend 15, its not just for anglers!

- Watch wild trout being stripped of eggs for the IFS hatchery
- Kids can try their luck at the junior anglers pond and maybe catch a trout for dinner! There will also be six tagged trout in the pond this year and if a junior angler is lucky enough to catch one of these fish they will win a prize.
- Discover the wonders of our native freshwater species
- Pick up some tips & ideas at the trout cooking demonstrations
- Take a helicopter ride and get a bird's eye view of the Central Plateau and Great Lake
- Enjoy refreshments, competitions and giveaways
- Learn about fisheries management
- Talk with trout fishing experts and practice your casting skills
- Discuss (& dream about!) boats and fishing equipment at the trade exhibits.

## Permits

Exemption Permits Issued from July 1 2014	61
Angling Exemption Permits Issued from July 1 2014	35

## Meetings/Events/media

- 4/3/2015 Ulverstone Anglers Club
- 6/3/2015 Dial Blythe Irrigation Scheme
- 16/3/2015 Launceston Big Picture School
- 18/3/2015 Penguin angling Club
- 14/4/2015 North West Fly Fishers Club
- 17/4/2015 Fly Fishers Club of Tas 60<sup>th</sup> Anniversary Dinner
- 18/4/2015 TGALT 150<sup>th</sup> Anniversary photo competition

## Carp Management Program – Chris Wisniewski

### Carp captures at a glance - Lake Sorell

#### Lake Sorell

January – March 2015 (Total)	Adult*/Juvenile	Total 1995 to present
<b>563</b>	<b>1/562</b>	<b>41,200</b>

\*Adult fish refers to carp from pre-2009 cohorts

The current funding has allowed a marked increase in effort being applied to eradicate carp from Lake Sorell. An intensive effort over the reporting period has resulted in a considerable reduction in the catch per unit of effort which hopefully is an indicator that the carp population has been heavily impacted.

Surveys undertaken in the Clyde River and Lake Crescent during March failed to find any sign of carp. This result is supported by the intensive work undertaken by the commercial eel fisherman during the summer.

The juvenile survey in Lake Sorell did not find any recruitment 2014/15. Four small carp have been captured through the summer. The size of these fish indicates that they are most likely from a late summer 2013/14 spawning event. The small number captured despite a massive sampling effort indicates that this cohort is very small and will actively targeted.

A two carp workshop is planned for 4-5 May where presentations will be given to the stakeholder group. The second day of the workshop will allow the team to analyse the data that has been collected and undertake operational planning for the coming year. The Deputy Premier will be provided with a briefing at the end of the workshop.

#### **Shannon Lagoon update – Chris Wisniewski**

A draft report was presented to the February IFAC meeting for consideration. The report outlines the options recommended by the technical panel to assist in improving water quality. The report is being reviewed and will be made available on the IFS website shortly.

## **Compliance – Stephen Hepworth**

### **Compliance Statistics from 1/7/14 to 20/04/15**

- 3,315 angling licences and 191 whitebait licences inspected.
- 62 fisheries infringement notices issued for 72 offences.
- 49 infringement notices endorsed as conditional cautions issued for 55 offences.
- \$15,660 in infringement notice fines.
- \$4,620 infringement notice fines (included in above) related to whitebait offences North West.
- 31 kilograms of whitebait seized.
- ATV vehicle seized.
- 9 whitebait nets seized.
- 2 search warrants executed in relation to residential premises at Smithton.
- Cannabis plant material and smoking device seized from above premises.
- 8 vehicles searched

## **Disqualifications**

- Two offenders convicted of multiple whitebait related offences were each disqualified from holding a recreational whitebait licence for a period of 5 years each commencing season 2014.
- Since 2009 16 Notices of Disqualification have been issued totalling 66 years of disqualification.

## **Prosecutions Matters to Date**

- Stephen John BAKES of Burnie was convicted on 7/8/14 in the Burnie Magistrates Court of 2 counts of take protected fish and 2 counts of possess freshwater crayfish. The defendant was fined \$1,510 consisting of fines and special penalties and court costs of \$78.44.
- Reginald Clemeth Reeve of Burnie was convicted on 7/8/14 in the Burnie Magistrates Court of 1 count of take protected fish and 1 count of possess freshwater crayfish. The defendant was fined \$560 consisting of fine and special penalty and court costs of \$78.44.
- Bench warrant issued for the arrest of offender for failing to appear in the Burnie Magistrates Court for offences against officers and whitebait related offences.
- Seven summonses served April 2015 on 2 defendants for multiple whitebait related offences and for offences against officers.
- A further 3 complaints are yet to be prepared regarding whitebait, protected fish and controlled fish offences.

## **Fisheries Officer Positions**

- Fisheries Officers Mark Asplin and Paul Middleton have been appointed to permanent positions located at Liawenee and Devonport respectively.
- During this reporting period significant compliance patrols were conducted over the period of 21 and 22 March and over the Easter break.

## **Compliance operations:**

### **March Long Weekend**

Over the weekend of 21 and 22 March Fisheries Officers provided a high profile uniformed, educational and enforcement presence for the detection of offences under Inland Fisheries and Marine and Safety legislation. The patrol area reached from the River Derwent to the central highlands and north to Devonport. 155 fishing licences were inspected including bag and size limits as well as vessels exiting and entering boat ramps.



Officers issued nine infringement and conditional caution notices for failing to wear a PFD in a vessel under six meters while underway (four), possession of assembled rod, reel and line and fishing without an angling licence (four), and using unattended set rod (one).

Anglers are reminded that it is compulsory to wear an approved life jacket (PFD) in a vessel under six meters while underway and the minimum safety equipment for motor boats on inland waters is fire extinguisher, bailer, bucket or bilge pump, auxiliary propulsion of either paddles, oars or outboard, and anchor rope and chain.

### **Easter**

Fisheries Officers have been very busy over the Easter holiday period ensuring compliance with Inland Fisheries and Marine & Safety legislation. High profile land and boat based patrols were conducted across the central highlands inspecting 196 anglers for fishing licences, bag and size limits and vessel safety equipment.

Good quality brown trout were inspected in several waters providing great fishing for anglers. Several offences were detected involving unlicensed fishing, use of a can to indicate movement in the rod and line, fishing with unattended set rods, fail to register a motor boat, and fail to wear a PFD in a vessel under six meters while underway.

Officers issued nine infringement and conditional caution notices in relation to these offences totaling \$1,120 in fines. In one situation fishing equipment was also confiscated. Anglers are again reminded that it is compulsory to wear an approved life jacket (PFD) in a vessel under six meters while underway and the minimum safety equipment for motor boats on inland waters includes a fire extinguisher, bailer, bucket or bilge pump, auxiliary propulsion of either paddles, oars or outboard, and anchor rope and chain.

## **Fisheries Performance Assessments – Rob Freeman**

### **Penstock and Fours Springs Surveys**

Over the 2014/15 period the Service conducted two significant fishery assessments at Penstock Lagoon and Four Springs Lake. The purpose of these surveys was to assess the size and structure of the brown trout populations and to assess the success of previous stocking events consisting of a mix of diploid and triploid brown trout fry, and the use of adult fish sourced from the spawning runs at Great Lake and Arthurs Lake.

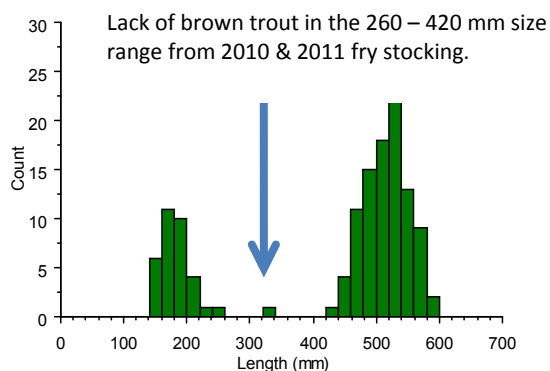
Examination of the data for Penstock Lagoon has been completed and a full report drafted. The data for Four Springs has been examined; however, confirmation of differentiation between diploid and

triploid fish has yet to be undertaken, although some assumptions can be made in the absence of this information.

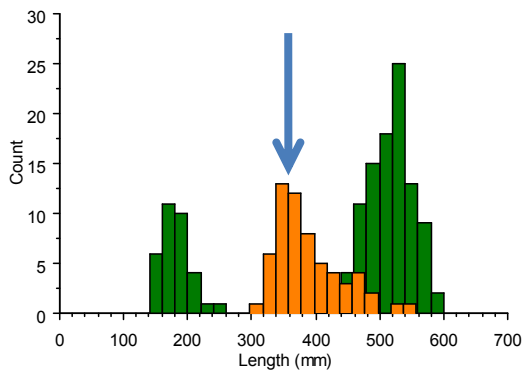
### Penstock Lagoon Survey – July 2014

During May 2014 to facilitate an assessment of the fishery, the Service released 2,000 adult brown trout with their adipose fin clipped, into Penstock Lagoon. The results of the subsequent July 2014 survey indicated the brown trout population was low at around 6,400 brown trout (2,000 of these were the fin clipped fish released in May 2014).

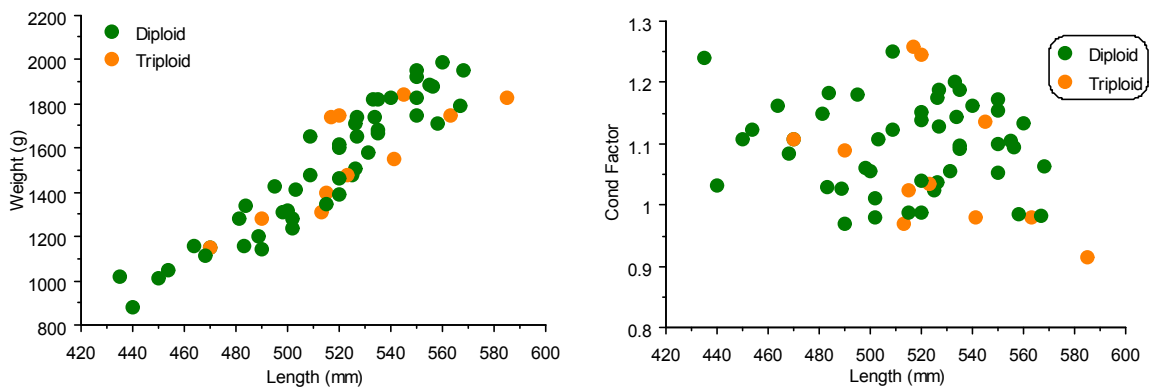
There was strong evidence to suggest there had been a failure in the recruitment of brown trout resulting from the 2011 stocking of triploid fish, and from the stocking of diploid fish in 2010 (see figure 1). The reasons for these failures are unknown, but the fact that both triploid and diploid fish were affected indicate it was most likely not a consequence of the triploiding process, as both types had been affected equally. In addition, there were triploid brown trout in both smaller and larger size ranges from previous stockings. It appears only to be the mid-size range fish (260 mm – 420 mm) that were affected. The stocking of 2,000 adult brown trout from Arthurs Lake in May 2014 would therefore appear to be been fortuitous, as they have filled the void in recruitment in this size range (see figure 2). Non fin clipped brown trout captured over 420 mm are most likely from a mixed stocking of 10,000 triploid and 5,000 diploid fish during 2009. However, the ratio of triploid to diploid fish captured in this size range (1 triploid to 5 diploid), suggest diploid fish have a greater probability of survival (see figure 3).



**Figure 1: Length distribution of brown trout, Penstock Lagoon 2014. The histogram shows a significant gap in the 260-420 mm size range, indicating a lack of recruitment from 2010 and 2011 fry stockings. The fin clipped brown trout released in May 2014 are filling a major void in recruitment during the 2014-15 season.**



**Figure 2:** Length frequency for all brown trout (clipped and non-clipped), Penstock lagoon 2014, showing fin clipped fish in lighter colour.



**Figure 3:** Length/weight relationship for diploid and triploid fish and condition factor for triploid and diploid fish.

The average weight, length and condition factor for triploid and diploid fish over 420 mm were effectively the same (see figure 3), indicating there was no detectable advantage in the growth rate for triploid brown trout. In addition, there was no evidence to suggest that triploid brown trout grew to a larger maximum size compared to diploid fish.

#### Four Springs Lake Survey - March 2015

A total of 94 brown trout were captured over two days. The overall catch per unit of effort ie the number of fish captured per fish trap was at the lower range of expectation, indicating a low abundance of brown trout within the lake.

The overall condition factor and the maximum size (weight) of brown trout captured indicate those fish within the lake are growing to an acceptable range (see table 1). Adult brown trout that were fin clipped and released into Four Springs Lake during May 2013 represented approximately 13% of

the March 2015 survey capture, these fish all showed significant increases in growth with an average weight of 1.5kg (released in May 2013 at 0.7 kg).

	Length (mm)	Weight (g)	Condition Factor (k)
Average	479	1491	1.3
Minimum	422	946	0.9
Maximum	570	2448	1.6

**Table 1:** Descriptive statistics for brown trout over 420 mm from Four Springs March 2015 Survey.

There was evidence of low recruitment from previous fry stockings resulting from 2012 and 2013 stockings, with low numbers of brown trout in the 200 – 360 mm length range (6% of the total catch).

Early indications suggest there is no difference in the weight of diploid brown trout at a given length compared to triploid brown trout of a similar length, inferring there is no advantage in growth for triploid brown trout over diploid fish in terms of rate of growth and maximum size reached.

A full report will be compiled once the diploid/triploid status of fish from the March 2015 survey has been confirmed.

Any angling clubs seeking a presentation of the results of either survey should contact Rob Freeman on [rob.freeman@ifs.tas.gov.au](mailto:rob.freeman@ifs.tas.gov.au) 0419123733

## Stocking and Surveys – Tim Farrell

### Changes to hatchery and stocking program for 2015

The IFS has reviewed its stocking requirements for the recreational trout fishery and will now source the majority of its wild brown trout stock from spawning fish traps in the Central Highlands and rainbow trout from commercial hatcheries.

The two new traps that were constructed during early 2014 at Arthurs Lake provided a 100% more adult brown trout transferred to public fisheries during 2014 than the previous year. A new trap has been constructed at Sandbanks Creek on the north eastern side of Great Lake and will be operational for the brown trout spawning run for 2015. This new trap will further increase the number of adult brown trout available to be transferred to other public fisheries.

The IFS has recognised the significant benefits of using adult brown trout harvested from the wild over hatchery reared fry and fingerlings. These benefits include better results for receiving fisheries through greatly decreased mortality of stocked fish and reduced costs of production.

Any brown trout fry required will from 2015 be grown from ova collected in the highlands, incubated at New Norfolk and grown at the Salmon Ponds. Triploid rainbow trout will be acquired from commercial hatcheries to fulfill the requirements of the public fishery for the species.

Rainbow trout stocks at Great Lake will be enhanced by natural recruitment through use of the zig-zag channels at Liawenee and management of Sandbanks Creek with the installation of the new trapping facilities.

<b>water</b>	<b>species</b>	<b>number</b>	<b>age</b>	<b>stock</b>	<b>type</b>	<b>priority</b>
Bradys Chain	brown	10,000	adult	wild	diploid	1
Bruisers	brown	50	adult	wild	diploid	1
Botsford	brown	100	adult	wild	diploid	1
Camerons	brown	50	adult	wild	diploid	1
Carters	brown	200	adult	wild	diploid	1
Curries	brown	400	adult	wild	diploid	2
Duncan	brown	70	adult	wild	diploid	1
Four Springs	brown	4,000	adult	wild	diploid	1
Penstock	brown	4,000	adult	wild	diploid	1
Lynch	brown	70	adult	wild	diploid	1
Paget	brown	50	adult	wild	diploid	1
Pet Dam	brown	800	adult	wild	diploid	1
Rocky	brown	100	adult	wild	diploid	1
Tooms	brown	4,000	adult	wild	diploid	1
Brushy	brown	1,200	adult	wild	diploid	2
Dulverton	brown	400	adult	wild	diploid	2
Big Waterhouse	brown	200	adult	wild	diploid	1
Blackmans	brown	900	adult	wild	diploid	1
Little Waterhouse	brown	100	adult	wild	diploid	1
Craigbourne Dam	brown	4,000	adult	wild	diploid	1
Pioneer Mine Hole	brown	400	adult	wild	diploid	1
Kara	brown	800	adult	wild	diploid	2
Crescent	brown	2,000	adult	wild	diploid	1
Leven	brown	400	adult	wild	diploid	1
Junior angling dams	brown	1,000	adult	wild	diploid	2
<b>Total</b>		<b>35,290</b>				

The table shown above indicates the allocations of brown trout adult transfers for the 2015 spawning run. To date Lake Botsford and Rocky Lagoon have been completed and Bradys Lake has received 3,000 of the 10,000 allocated.

Last year there were just under 30,000 fish transferred from the three traps at Arthurs Lake, Liawenee Canal and Mountain Creek, Lake Sorell. The target of 35,000+ brown trout should be able to be achieved with the commissioning of the trap at Sandbanks Creek; however this will be contingent on rainfalls.

The fry allocations for 2015 are considerably less than previous years with only 50,000 required.

<b>water</b>	<b>species</b>	<b>number</b>	<b>age</b>	<b>stock</b>	<b>type</b>	<b>priority</b>
Big Lagoon	brown	5,000	fry	wild	diploid	1
Rostrevor	brown	5,000	fry	wild	diploid	1
TI - Riana Dam	brown	20,000	fry	wild	diploid	1
Farm Dams	brown	20,000	fry	wild	diploid	1
<b>Total</b>		<b>50,000</b>				

## Updating the Tasmanian Inland Recreational Fishery Management Plan 2008-2018

To reflect changes in the IFS stocking regime it is appropriate for the Tasmanian Inland Recreational Fishery Management Plan 2008-2018 to be updated.

Changes to the plan will include an appendix that tabulates annual stocking requirements. The new appendix will address the change in stocking policy such as the emphasis on adult transfers, the cessation of triploid brown trout stocking and wild rainbow trout stocking, the reduced demand for brown trout fry stockings and the use of domestic triploid rainbow trout.

There will also be a need to address the recent changes to private dam stocking assessment and the inclusion of changes to water types e.g. Pioneer Mine Hole as an all year round water and Lake Kara as an Atlantic salmon stocked water.

Since this fishery management plan was released in 2008 there have been a number of changes to bag limits at several fisheries with repeated requests to review the bag limits in rivers. These changes will be reflected in the updated change as well as future plans for regulation change should they be identified.

### **River electrofishing surveys**

During February and March 2015 an electrofishing survey was conducted at 14 river sites representing the north, south and northwest regions of Tasmania.

This survey follows on from surveys in 2013 and 2014 that examined the current state of Tasmania's river fisheries and progress of their recovery from cormorant induced depletion during 2012/13.

A full report of the survey will be available on the IFS website in coming months. This year's survey is most likely the last of this particular work program.

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### **Spawning Runs – Brett Mawbey**

The 2015 brown trout spawning migration has commenced at Great Lake. An early run of fish started entering the trap over the Easter period, enabling staff to recently harvest approximately 150,000 ova and commence adult transfers in to Brady's Lake. The fertilised ova were transferred back to New Norfolk on the 8 of April and laid out in our incubator facility; hatching is expected in around 6 weeks from harvest.

Staff will be focused on servicing the migratory traps at Great Lake, Arthurs Lake and Lake Sorell over the winter and transporting fish to enhance other fisheries. Recently, the Brady's system received 2000 browns averaging 900 grams, (70% male) from the Liawenee trap.