Lynton.G.Barr
P.O.Box 23
Swan Reach 3903
Victoria
Phone 03 5156 4674
Email-
delbarr1@bigpond.com

Around the Jetties
February 2011
Issue No 43

An Anglers Newsletter

"Inch for inch and ounce for ounce a fishing rod is one of the most powerful weapons for peace in the world today. With it we can reach across all frontiers. The world may gabble in a hundred tongues, but put a fishing rod in the hands of one of its members, and you'll find you that, miraculously, you both speak the same language."
By Lance Wedlick September 1959
The preface to the Vic McCristal book "Fishing in Australia 1962."

Editorial

Reading the VRFish Newsletter for January I was very surprised to find that Fisheries Victoria are recruiting six more Fisheries Officers, and that these officers will be funded from the Recreational Licence Trust Account or the licence fees of recreational anglers. The recreational "All waters Angling Licence" was introduced in 1999 with up to $1.1m of the contributed amount to pay for ten Fisheries Officers. This was a somewhat controversial use of licence fees at that time. In 2009 this amount only employed seven officers due to increasing costs.

The almost doubling of the number of Fisheries Officers employed, from seven to thirteen, using trust funds will mean the cost will be $1.95m in a full year according to Robert Krix, Manager-Statutory Consultation for Fisheries Victoria. This will mean of the $6m received from licence fees almost 30% of licence fees will go to employ Fisheries Officers which in turn has to mean less for research and less for restocking etc.

The employment of Fisheries Officers using licence fees has always been questionable, and I had thought that VRFish was now opposed to this use of licence fees and believed anglers could get better value than expending $2m on such employment, but VRFish has made no comment. Opponents of such employment have advanced the argument that the employment of personnel in Fisheries Victoria is normal department expenditure and should come from the Fisheries budget and not be a charge on licence fees.

In 2009/10 the recreational fishing grants across this state were only $1.8m. Could it be that in 20010/11 the cost of funding 13 Fisheries Officers will be more than the amount available for fisheries research and the stocking of Victorian waters? Let us hope that VRFish might let anglers know its position on this matter rather than just accepting a questionable use of licence funds. All new appointments will be to the coastal communities of Cowes, Mornington, Altona, Geelong and Apollo Bay.

This publication does not object to the employment of Fisheries Officers and endorses the need for more officers; only the method of funding such employment is the issue. By the way I recall seeing details of a State Government commitment that with the introduction of Marine Parks in Victoria, 22 additional Fisheries Officers would be employed from general revenue. This has not occurred.

There has been no media release from Fisheries Victoria on this increase in fisheries Officers from the Fisheries Trust Fund, so that almost all anglers who have contributed to the licence Trust Fund have been unaware of this move that will greatly increase the contribution of anglers to the employment of Fisheries Officers.

Now this action raises an immediate question for the new Government. The Coalition Fishing Policy (see Issue 42) states "The coalition would reinvest all revenue raised from Fisheries Licences back into the recreational fishing industry along with $4m over four years for the Recreational Fishing Grants Program."

I doubt that recreational anglers would see the employment of additional Fisheries Officers, as "reinvesting in the recreational fishing industry." Hopefully the Government will clarify this question.

****

Editors Comment on the Following Letter

Simon Branigan, Marine and Coastal Parks project Officer for the Victorian National Parks Association requested the opportunity to provide the Associations viewpoint on National Parks in this publication. In the interests of open discussion that opportunity is provided. This information is published without comment.

The VNPA, fish & marine national parks

As Marine and Coastal Project Officer for the Victorian National Parks Association (VNPA), I've been hearing through the grapevine that there are concerns in the local fishing community about our marine campaign and that we are trying to shut down fishing in the Gippsland Lakes, Mallacoota Inlet and other areas.

The VNPA is an independent, not for profit, membership based group. We have approximately 3000 members, spread throughout the state, including recreational fishers. Our shared vision for Victoria is as a place with a diverse, secure, healthy natural environment, cared for and appreciated by all.

We have been working to achieve better protection and management of our marine and coastal environment.

This work is underpinned by an independent science review of Victoria's marine and coastal waters that we commissioned from Australian Marine Ecology, a science organisation with a respected track record working for government, industry and environment groups. The review, which took over two years to complete, looked at the values, critical habitats and threats to our marine environment, based on available science.

The review contains indicative recommendations on areas that warrant better protection and management – but **identifies no spatial boundaries**. It also establishes that there are still major gaps in our knowledge base. For a full copy of our review go to www.vnpa.org.au or contact the office for a hard copy of the summary.

This review has restarted the public conversation about marine national parks, and we consider that the best way forward now is with a comprehensive, independent investigation by VEAC (the Victorian Environmental Assessment Council) into Victoria's marine and coastal waters.

VEAC was set up by the Government to provide independent and strategic advice relating to the protection and ecologically sustainable management of Victoria's environment and natural resources.

Regarding the Gippsland Lakes and Mallacoota Inlet, both contain high conservation values - which is no secret – and both are highly valued recreational and commercial fishing areas. No matter what happens in the future, the vast majority of these areas will always be open to fishing – an outcome that we wholeheartedly support.

There's a lot of common ground between marine conservationists and fishers in terms of safeguarding our marine environment – we just sometimes differ about what tools to use to achieve this. The 'Around the Jetties' newsletter is a strong promoter of stewardship of our marine environment, with the January 2011 edition's discussions about sustainability issues with the Black Bream fishery and other species an important contribution to conservation efforts.

Regarding marine national parks, there is considerable scientific evidence for their benefits. While scientific evidence in Victoria is still limited, there is growing anecdotal evidence about the benefits of marine parks here and elsewhere. A recent literature review of over **350 scientific and social studies on marine parks showed clear benefits from both an economic and an environmental perspective, including spill over of fish stocks.**

We consider that there is also a need for an ecosystem-based marine planning framework, similar to land use planning – to address the current ad hoc approach to issues such as oil and gas exploration. Recent disasters highlight the consequences of poor governance and placement.

The VNPA understands that the management of our oceans, bays and inlets needs a considered approach to achieve sustainability, and strongly supports the right of anglers, both commercial and recreational, to fish into the future.

Simon Branigan
Marine & Coastal Project Officer
Victorian National Parks Association

Tracks into Lake Tyers

Recently I spent five hours with John Harrison in his four-wheel drive and accompanied by Allan Beveridge, an angler with an enormous knowledge of Lake Tyers, examining the bush tracks into Lake Tyers. It was brought to our notice that Parks Victoria, the body responsible for the Lake Tyers area, was in the process of undertaking some rationalisation of these tracks due to the state of the tracks. Vehicles being used around the edges of the lake were causing damage to some of the fragile areas close to the water. Considerable work has been undertaken at Long Point and, whilst some tracks in this area have been cut off, steps have been provided from the small parking area for anglers and others to enable access to the water's edge. Personally I have no doubt that this area has been improved; however the design of the area has provided very limited parking space. The use of boulders in some areas to close tracks to the public seems to me to be questionable. The large boulders stand out and in my view they are not compatible with the areas in which they are placed, and I wonder why such boulders were used in preference to bollards.

Closed Track

Lack of Parking

An unfortunate aspect of this development is that the public and users of these tracks have not been taken into Parks Victoria's confidence and informed of the rationalisation of tracks. We saw no notices indicating the changes taking place or giving reasons for these changes. I am sure much more discussion will take place on this matter in the near future. Of particular concern to me is that when moving parking from areas close to the water, the many older or handicapped anglers, birdwatchers and picnickers will be the most affected. There must be a point where the interests of all the users of these tracks can be met and at the same time the environmental concerns of Parks Victoria can be satisfied. Some users, who have left rubbish in some wonderful areas currently open to public use, do not help in any discussion on an issue such as this. The Glasshouse area is a case in point.

Preliminary discussions are taking place with National Parks and on Monday 14th February Parks Managers, VRFish CEO Christopher Collins, John Harrison and myself will inspect the tracks and hopefully agreement will be reached enabling full recreational angler access. John Harrison has indicated that he would be pleased to receive the views of anglers and in particular those who use these tracks to obtain access to Lake Tyers for camping, fishing, or

just an afternoons picnicking. Your views can be sent to the address on this publication, either by mail or by the Internet and they will be passed onto John. There will be a further report on the matter of tracks in the next issue.

A Fishing Tragedy -Back Bream Euthanized.

Readers would be aware from (Issue 41 December) that I approached East Gippsland TAFE for information on what happened to the 20-30,000 black bream fingerlings that had been spawned during a hatchery course conducted at the facility on Bullock Island, Lakes Entrance. I had seen the tank with this wonderful hatching and photos were provided in the December Issue of Around the Jetties. As I had no reply I wrote again on the 12 January to enquire what had happened to the fingerlings and also the adult fish, which had been taken from the Nicholson River.

I received a letter from the TAFE Chief Executive Officer Angela Hutson on the 31st January with the following explanation, which I found most disappointing.

"Whilst the hatchery course was a successful learning experience for the students involved, the mortality rate of the fish was high. This was not entirely unexpected as Black Bream have very precise environmental requirements for growth and development. Whilst it was hoped that a number of the fish could be kept within the facility for future training and research programs, unforseen difficulties that affected water quality made it unlikely the remaining fish would survive. In accordance with the conditions of the permit and animal ethics standards, these fish were humanely euthanized."

I would think the killing of this vast number of very small black bream would shock all recreational anglers. The question arises from a lay person why fish bred from black bream taken from the Nicholson River could not be released in the Nicholson River remembering precedent when 27,000 black bream bred at Queenscliff were released into the Nicholson River by the then Minister Bob Cameron in 2004. Whilst the question of the parent fish releases was not answered I have been informed from another source that a number of these adult fish were also euthanised. The letter from the TAFE executive Officer indicates that a permit from the Department of Primary Industry to conduct the course stipulates that all fish must be kept on site and ultimately disposed of on site and it is also noted that the Bullock Island facility is not accredited to release fish. In other words the intention must have been that any fish spawned would have to be ultimately euthanized.

The final note on the letter from TAFE is that "subject to demand eg TAFE will consider offering similar training in the future and all operations will continue to be undertaken in accordance with aquaculture research permit conditions." Let's hope this does not eventuate unless some form of guarantee is given that any fish produced from the course using adult fish from local rivers will be released with the parent fish in those rivers and that EG TAFE obtains the relevant permits to release the fish resulting from a hatchery course. This is not a good reflection on the DPI for allowing the course knowing any fish resulting would be euthanized or EG TAFE running a course that would lead to the deaths of 20-30,000 black bream.

Bass and the Lakes Entrance TAFE Facility

It is worth recalling that a joint project involving Fisheries and a number of other partners to breed Australian bass resulted in 200,000 Australian bass eggs hatched at the Lakes Entrance TAFE facility. These fish died after a water quality problem, and sometime later valuable brood stock also died and the same reason, water quality was given for the disaster. These fish were for restocking of the Snowy River, and as a result of the fish deaths the local breeding project collapsed. (Issue 18 Around the Jetties October 2008) It would seem that water quality problems have continued to plague fish breeding projects at this facility. This project that was so close to success was reported in detail in Around the Jetties. Of course the difference is that the recent bream hatching was euthanized by TAFE as a result of an agreement with the Department of Primary Industry.

Artificial Reefs –The Way of the Future?

In Issue 31 Jan/Feb 2010 the matter of artificial reefs was commented on, with a suggestion that perhaps artificial reefs should be considered for the Gippsland Lakes and for Bancroft Bay in particular as a starting point, given the success of reefs in estuarine waters in NSW. This suggestion has become even more relevant today with the announced Recreational Fishing Policy of the new Victorian Government including the statement that the Coalition "will expand the artificial reef program to increase fish habitat."

Contractors install fish balls into Merimbula Lake and one of the concrete balls on the lake floor.

In May 2009 three artificial reefs were introduced into Port Phillip Bay, with reef balls being placed in about 11m of water. The three reefs and a buffer zone are closed to commercial fishing and a three-year trial is being undertaken. The trial will end in March 2011 so it is most relevant to be considering further reef options, and the Gippsland Lakes would provide a chance to examine the possibilities of estuarine reefs in Victoria supporting fish populations that are under considerable stress. Part of the assessment of the Port Phillip reefs will be a comparison with nearby natural reef. Initial reports according to Fisheries Victoria scientist Paul Hamer would seem to indicate that the reefs are very successful with large numbers of pinky snapper inhabiting the reef areas as well as more species such as flathead mullet and leatherjackets. The cost associated with these reefs over the three-year period including research is $1.1m. The location of the three reefs in Port Phillip Bay are off Aspendale, Frankston and Seaford.

Artificial reefs are not new, and have been used around the world to regenerate damaged ecosystems. Originally this was done with bundles of tyres and even sunken ships, however today specifically designed reef materials are used to develop reefs which improve the environmental outcome.
In NSW between 2005 and 2007 a small number of reefs were constructed using reef balls in three Recreational Fishing Havens including Lake Macquarie, Botany Bay, and St Georges Basin. Three years of detailed scientific monitoring showed the reefs were effective at providing new habitat for a high diversity of fish species.
Following the success of the initial estuarine reef development further larger artificial reefs have been established at Lake Conjola and Merimbula Lake.

The Merimbula reef measures 1600 square metres and is made up of 400 reef balls constructed of concrete aggregate. NSW Fisheries expect bream, tarwhine, flathead and leatherjacket together with other species to inhabit the reef given the experience of the earlier reef developments. Marcus Gregson, Reefs Project Coordinator with the NSW DPI is quoted as saying “Merimbula’s $160,000 Recreational Fishing Trust Project would not have been possible without the funds collected from NSW fishing licences.”

It would seem that the Gippsland Lakes, the largest estuary in Victoria, would be an ideal location to place artificial reefs in different areas to assess the impact of these reefs on estuarine species, particularly given the acknowledged decline of black bream and the current commercial statistics suggesting a similar decline in dusky flathead. This suggested decline of dusky flathead is supported by recreational angler anecdotal information. Bancroft Bay may provide an interesting area to establish artificial reefs given the many uses of the bay and also given that the jetties of the area already provide limited habitat that seems to attract fish to the area, including bream and luderick, whilst the sandy expanses of the bay are normally home to dusky flathead. It would also seem logical that with the increasing salinity of the Gippsland Lakes such reef structures may provide for snapper in the future. Already thousands of small snapper inhabit this bay at times, but few to remain to reach the minimal legal size although historical material suggests large snapper were found in the Gippsland Lakes at the turn of the century.

Given the NSW reports there seems little doubt that artificial reefs can provide long term habitat for estuarine species, and given the commitment to artificial reefs in the recreational fishing policy of the Victorian Coalition Government the next steps in the story of artificial reefs in this state will be most interesting, and it would seem logical that estuaries in Victoria such as the Gippsland Lakes are targeted for the next round of reef structures.

A Do It Yourself Artificial Reef

David Strange of Bancroft Bay has constructed a small reef using 5 reef balls under a jetty. These balls were placed from the barge Samson and craned into position. The reef balls placed under the jetty are smaller than the large units used in Port Phillip but are of the same design. The Gippsland Ports, and also the DSE approved this project, as it provided no threat to navigation being under a jetty.

Now the interesting aspect of this do it yourself reef project is that after twelve months David Strange is seeing a variety of fish around the reef and the balls are covered with weed and crustaceans. He strongly believes that the reef has attracted fish and that it will only get better as the reef ages. David's success may encourage other jetty owners around the lakes to consider obtaining approval to place a do it yourself reef under their jetties. By the way David indicated that the reef balls suitable for such a project cost about $200 each with placement costs as the only other expense.
Perhaps the other value of David's reef is to prove to authorities that Bancroft Bay could be one site to consider for an estuarine artificial reef.

It's a Dilemma

The stocking of bass into the Avon and Mitchell Rivers noted in the last issue of Around the Jetties creates a dilemma that fishery managers and the Government will have to address in the future. I have reported previously on the release of 27,000 black bream fingerlings into the Gippsland lakes on the 7th April 2004 by then Minister for Agriculture and Fisheries Bob Cameron, and I think it is generally accepted this was a fairly gross publicity action at that time, with no affect on the fish stocks of the Gippsland Lakes. The TAFE facility at Lakes Entrance with its numerous holding tanks may have the capacity to be part of a bream breeding program; however I have a report that this facility is in a state of disrepair due to neglect and recent events would support that view.
It is obvious that with the TAFE hatchery course and its resulting black bream fingerlings, and the action by the Minister in 2004 with fish spawned at the Queenscliff Fisheries Research facility, that Fisheries Victoria has the ability to breed black bream to stock the lakes and estuaries of Gippsland.

The real dilemma is however, that it is doubtful whether recreational anglers or the Victorian Government would support such a breeding program, if between 25-50 tonnes of black bream were to be removed annually in commercial nets, and the program was funded either by taxpayers or recreational anglers from their licence fees.

Perhaps the other option of removing netting from the mouth of rivers and a closed season for black bream spawning in our rivers, could be, introduced first and the results of a positive action to protect bream stocks assessed. If this approach fails then the question of restocking must be on the agenda, and this might entail a further of buy back of commercial licences in the Gippsland Lakes. This is a dilemma that will take considerable leadership to resolve, but let's hope the first steps to resolve the black bream dilemma are taken.
The question of bass stocking in the Mitchell and Avon rivers further compounds the problem, as this species according to fisheries scientists moves from the rivers to the lakes to spawn and they could then become a target for commercial fishing.
It's worth noting that a spawning closure applies to bass and estuary perch in rivers during the months of June to August in each year in NSW.
Around the Jetties reported on the research into the movement of Australian bass in the Snowy River in Issue 26 June 2009. This report was based on work undertaken by Paul Brown that demonstrated the movement of bass between rivers and the estuaries in the Snowy River, with one bass travelling 83kms downstream from Jackson's Crossing to

the Marlo estuary and there were a number of other specific examples of the movement of the bass from the rivers into the estuaries.

A Case Study

Black bream were identified as in decline in the Blackwood Estuary WA. 220,000 juvenile cultured black bream were restocked in this estuary in 2001 and 2002. Today over two thirds of the legal catch of black bream in the Blackwood River are restocked fish. The broodstock were released back into the estuary.

An Afternoon Coffee by the Jetty

I was recently chatting with a chap who lives on Bancroft Bay in the Gippsland Lakes over a cup of coffee on his patio and talking of the fishing he had experienced from his jetty in past years. He made the point that where he used to catch dusky flathead off his jetty on plastics, these fish were now quite rare, and this is a report I have been hearing from many visitors to the lakes over this holiday period. It was a pleasant hour but just a little depressing when the fishing of today was compared with a decade ago. As I was leaving I was shown a beautifully mounted mulloway of something over 20lbs. This large fish was caught off my host's jetty in the early eighties. The fish was taken on a light bream rod, and a line with a breaking strain of "about 10lbs." The bait that captured the fancy of this monster was a prawn. As I left I wondered at the shock an angler fishing for bream would get when a fish of this size flashed in front of him. What a memory!

Bob Mc Neill on recent Fishing in Lake Tyers

This report taken from Bob's "Research Angler Fishing Diary" covers the period 16th November 2010 to 7th January 2011.Bob reports that in this period 99% of the fish he caught were dusky flathead, with one bream and the odd tailor (3). Over this time Bob used live mullet as his bait. I found it interesting that on the 26th November Bob caught 19 flathead. In that catch only three were above 40cms and the smallest was 23cms. This would seem to indicate that a successful spawning took place in Lake Tyers in the last two years. During the reporting period Bob caught 198 flathead, but what is of particular interest is that only ten fish were 50cms in length or better and only two of these fish were over 60cms. In this catch there was one fish of 79cms with an estimated 9lb weight.

Now as anglers we know the importance of big flathead for recruitment and the small number of big fish in this recreational anglers sample must be a concern to both anglers and fisheries managers. Recent NSW research into dusky flathead suggests a large flathead can produce 290,000 to 390,000 eggs and all large flathead are females. (Gray and Barnes 2008)

Bob provided a disturbing tale of an angler who caught a tagged flathead in Lake Tyers and after ringing several fisheries Departments was told that this area of research had been discontinued due to lack of funds. Bob generally fishes two mornings each week between 6.00 and 9.00am. Bob has a friend who is a dusky flathead angler who only uses lures and who is going to keep a record of his catch. I am hopeful we might in the future get a comparison of angler's success rates between lures and live bait for dusky flathead in Lake Tyers. As always thanks to Bob for making his catch material available to this publication and for his continued work as a research angler.

Next Issue

A summary of the detailed Research Report on the Angler Diary monitoring of Lake Tyers and Mallacoota that has just been released will be a feature of Issue 44. East Gippsland anglers will find this of great interest.

Fish Deaths

A recent Environmental Protection Authority Media release warned that with the current floods we could expect more fish deaths due to Blackwater causing low oxygen levels. Readers will remember we highlighted fish kills in the Wakool area and the Wimmera River over the last two years. I had a letter from a reader, which was accompanied by the front page of the Swan Hill newspaper, which featured two chaps removing dead Murray Cod from the Wakool; however this was prior to the current floods.

Many readers would not be aware of a substantial fish kill in Lake Tyers in November in the area of long Point. Local angler Allan Beveridge inspected the fish kill and remarked that as well as bream and luderick there were a number of very big dusky flathead which he estimated to be in the vicinity of 8lbs. National Parks noted the fish kill and attributed it to low oxygen levels. Fisheries Lakes Entrance did not have any of the fish analysed as they had deteriorated when they received the report of the kill. Allan made a couple of observations that were interesting when he stated that poddy mullet did not seem to be affected, and surprisingly fish had returned to the area where the fish deaths occurred within two days. Allan Beveridge estimated the kill could have been in excess of 2000 fish.

Oxygen deprivation or Blackwater is said to occur in areas where large amounts of leafy or woody material is washed into rivers or low lying waters systems after increased water flow following storms or floods according to the

Environment Protection Authority. The question arises why such a fish kill would occur in the Long Point area with no storms or floods to wash additional organic matter into the area. and why only in this localised area?

Murray Cod and Lake Eildon

In the December issue of Around the Jetties (No 41) the plan to provide Lake Eildon with 1 million Murray Cod in the next three years to make this water a fishing haven in the state for this species, was applauded and the previous Minister and Fisheries Victoria were credited with this exciting development. A media release on the 27th January announced that the Government was releasing 30,000 Murray Cod fingerlings into Lake Eildon on that date and this was part of the 1 million stocking of Murray Cod in Lake Eildon. This has meant that 380,000 Murray Cod fingerlings have been stocked in Lake Eildon this year.

The Media release went on to say, "Minister for Agriculture and Food Security, Peter Walsh, said Lake Eildon was being stocked thanks to an $800,000 project funded by fishing licence fees." I believe that this is the first time it has been publicly stated that anglers licence fees are funding this project. According to Robert Krix, Manager (Recreational Licence Trust Account) this project will be funded over three years. This is a wonderful project and a great use of anglers licence fees.

Fisheries Research Report

The following report that I have summarised is I believe most important for anglers, as it suggests the reasons for the sporadic spawning of black bream, and the implications and importance of freshwater flow on this species. The report was prepared by Gregory.P.Jenkins, Simon.D.Conran and Alexander.K.Morison of the Marine and Freshwater Fisheries Institute Queenscliff and was published on the 4th November 2010. I am indebted to Simon Conran for making this publication available.

"The highly variable recruitment of an estuarine fish is determined by salinity stratification and freshwater flow: implications of a changing climate."

Freshwater flow is the principal variable that determines the characteristic of an estuary and there seems to be a positive relationship between freshwater flow and recruitment variability of estuarine fish such as the black bream, however it should also be recognised that high water flow such as flood events can have a detrimental effect on recruitment.
Estuarine systems such as the Gippsland Lakes are characterised by variable salinities, and the saline structure has been found to influence the recruitment of estuary fish.

Now the variability and magnitude of freshwater flows and the salinity structure of estuaries is undergoing change. Flows may be reduced through human activity such as construction of dams and water diversions for human consumption, and agriculture. Salinity structure may also be affected by human activities such as maintaining artificial entrances that would otherwise be closed to the sea and added to this, freshwater flows may be reduced due to a decline in rainfall in some areas and increased evaporation due to climate change.

Black bream occur throughout southeastern Australia and are important in the Gippsland Lakes and have been subject to large fluctuations in catches in the last 100 years. Since the mid 1980's catches have been in decline and reached very low levels in the 1980's that have continued to the present day.
Black bream spawn from late winter to early summer in water salinities greater than 10 parts per thousand and the eggs tend to gather in the region of the salt wedge when developed. The recent recruitment has been episodic resulting in the black bream population being dominated by a few exceptional year classes.
The present study investigates the view that recruitment of black bream in the Gippsland lakes is related to freshwater flow and water column stratification, depending on the development of a halocline in the black breams preferred salinity range for reproduction.
(See later for details of halocline and salt wedges.) Editor

Area Studied

The study was conducted in the Gippsland lakes. These lakes are Australia's largest lagoonal estuarine system covering 600 square kilometres. The system has a low tidal range, and is connected to the ocean by an artificial entrance constructed in 1989 to stabilize water levels and create access to the lakes for fishing boats and shipping vessels.
Lakes Wellington, King and Victoria are the largest lakes, and the system is fed by 5 major rivers entering the lakes.0Avon, and Latrobe in the west and Mitchell, Nicholson and Tambo to the east. These rivers drain 10% of the freshwater flows in the state of Victoria. The Gippsland Lakes are 70kms long forming the largest navigable network of inland waterways in Australia. Generally increased river flows occur in winter-spring.

Otoliths from black bream in the Gippsland lakes and rivers were obtained from commercial sources and recreational anglers as well as annual fishery independent surveys for use in ageing the black bream and thereby ascertaining the year of spawning of the fish. The Environment Protection Authority has been measuring at 5 sites in the Gippsland lakes salinities since 1986 at 0.5metres from the surface and 0.5metres from the bottom and this provided information to determine water column stratification.

Overall using the 3 sampling methods the highly variable recruitment of black bream was shown with the 1989 and 1995 year classes and to a lesser extent the 1987, 1998, and 2001 year classes dominating the samples. The peaks in recruitment in 1995, 1998, 2001 and 2003 matched the peaks in stratification.

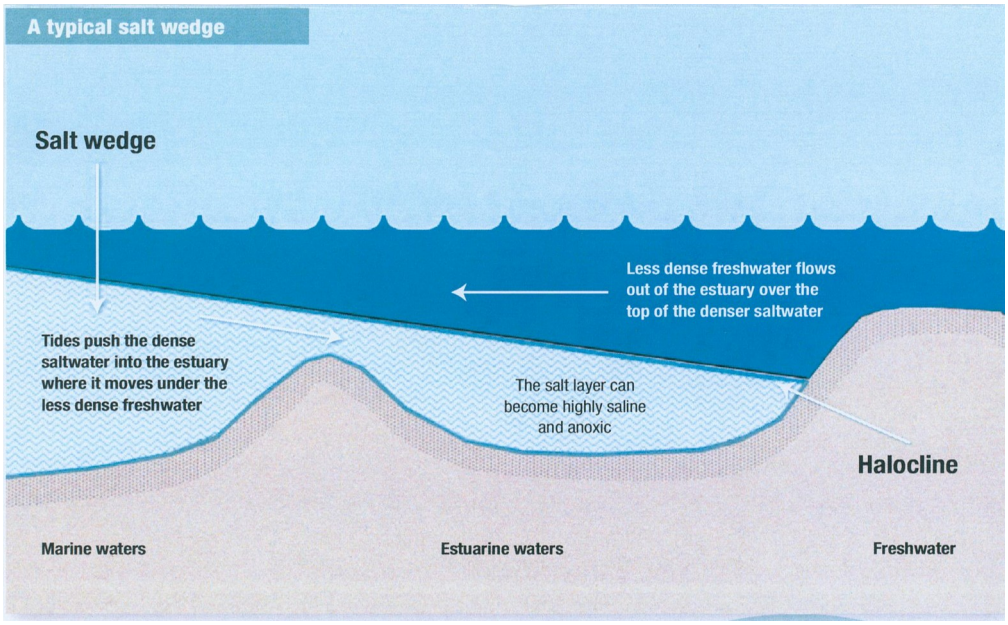
The Findings,

The water column stratification and freshwater flow are key environmental factors that influence the recruitment of black bream in the Gippsland Lakes. The bream eggs buoyancy means they will accumulate near the halocline in a strongly stratified water column. There are several possible reasons for higher bream recruitment when the Gippsland lakes are more stratified. Stratification may be the cue for bream to spawn and may support higher survival of eggs and stratification in the lakes mean a greater area for black bream spawning, however under conditions of low river flow and increasing salinity in the lakes (almost to marine level) would mean that spawning would take place in the rivers. Spawning in the lakes would also put juvenile black bream in close proximity to sea grass that would be beneficial for their survival. There is a significant relationship between fresh water flow and bream recruitment variability. Very low flows would likely result in reduced stratification and an increase in bottom salinities above the black breams preferred range as has been seen throughout the lakes in recent drought years. Likewise very high flows would reduce stratification and salinities below the level preferred by black bream. Thus moderate rather than extreme flows are likely to encourage stratification and spawning of black bream.

Recent sampling in the Mitchell, Tambo and Nicholson Rivers under dry climatic conditions has shown that significant black bream spawning took place well upstream from the lake where stratification conditions were suitable. Acoustic tagging has shown that black bream spend that black bream spend the majority of their time in the rivers of the Gippsland lakes rather than the lake itself.
The effect of spawning upstream is a reduced area for potential spawning and this has probably contributed to reduced bream recruitment in recent years. The reduced bream numbers are reflected in both the commercial catch rates and recreational angler catch rates in the rivers over recent years.

Proposals to construct additional dams on feeder rivers or to create additional entrances to the lakes to reduce such problems as algal blooms would increase the impact of climate change on bream populations.
This study suggests “water managers should aim to maintain intermediate daily flows into the eastern Gippsland lakes of at least 3000 Ml over the July to December period to sustain a healthy black bream population and Fishery,”

Finally decreased water flows predicted for the Gippsland lakes region under climate change are likely to lead to increased salinities and decreased stratification of the lakes limiting spawning habitat to the tributary rivers and potentially reducing the bream population in the lakes.



Salt Wedges and Stratification

The salt wedge is a layer of salt water that lies below the fresh water, as the salt water is denser. This wedge will extend up rivers at times of low freshwater flow, and move downstream at times of high freshwater flow. The wedge can protect eggs and larvae from entering the upward flowing water and being washed out of the river, and at the same time it can provide a source of food for the young fish. The wedge can also be dangerous to fish if it becomes depleted in oxygen, and this can cause fish deaths.

Source-Victorian Department of Sustainability and Environment

Editors Comment

This research paper reinforces the need for river flows of freshwater to be maintained into the Gippsland Lakes, and it also acknowledges once and for all that since the 1980's black bream catches in the Gippsland lakes have been in decline reaching very low levels in 2000 "that continue to the present day." This paper also acknowledges the spawning of black bream in our rivers, which in turn raises the issue of having these rivers open to recreational angling at this time. The research paper refers to the unpublished research of Joel Williams. Joel was the only speaker on black bream at the 2010 Breaming with Knowledge Conference. The paper also poses the possibility of even greater strains on the black bream into the future if the predictions of climate change become a reality.

If we are serious about maintaining a black bream recreational fishery then perhaps we also need to examine the commercial netting of this species.

Papers such as the above raise issues for Governments, Fisheries Managers, and Water Authorities as well as providing scientific information on one of our iconic species of fish, the black bream that was once synonymous with the Gippsland Lakes.

Huge Haul of Undersize Fish Illegally Netted at Carrum

Three Melbourne men are facing charges after being allegedly caught with a huge haul of fish captured in illegal nets off Carrum. In total Fisheries Officers found 832 fish in two vehicles of which 709 were undersize. The fish included black bream, Australian Salmon, yellow eye mullet, garfish and flounder. Fisheries Victoria is to be congratulated on this interception, and it is to be hoped that the courts will impose an appropriate response if the alleged netters are found guilty.

Photo from Fisheries Victoria Fish Fax Jan 24th

Contributions- Your contributions to this angling newsletter are most welcome and we look forward to publishing your items of interest

Readers- Don't forget you may get a friend or an interested angler onto the mailing list for Around the Jetties by simply sending us an email with details of the person you are nominating and his email address or a letter with details of a mailing address.

Good Health and good fishing
Lynton Barr

A Late Report

Gippsland Lakes Fish Stocks in Continued Decline

Fisheries Victoria Commercial Fish Production Bulletin for 2009/10

The commercial Fish production statistics have been used over the last fifteen years as a key indicator of the status of fish stocks in the Gippsland Lakes. The latest statistics released on the 10th February for the year 2009/10 provide evidence of a continued decline in recreational fish stocks.

*The commercial production is the lowest in the last twenty-five years, and may be the lowest on record. In the period 1997/8 to 2001/2 the average annual commercial catch of black bream in the Gippsland Lakes was 155 tonnes. In the latest statistics the catch for 2009/10 was 36 tonnes.
The decline in the catch of dusky flathead in the Gippsland Lakes is most disturbing. In 2005/6 the commercial catch of this key recreational species was 48 tonnes. Since that year the catch has declined progressively until in the latest statistics it is a mere 14 tonnes from 20 tonnes in the previous year. This is not unexpected as with no catch limits and increasing prices for flathead this fish that was once disregarded as a commercial species is now vigorously targeted. With the continued rate of decline of this species it is not inconceivable that it could be commercially fished out within three years, despite the bag limits accepted by recreational anglers.
The commercial catch of trevally increased from 8 to 10 tonnes however the commercial catch of every other species of listed fish in the bulletin declined. The value of the commercial catch was a mere $1.031million, of which the 36 tonnes of bream yielded $418,000 or $11 per kilo. When one considers the value of recreational fishing to the Gippsland Lakes it is hard to understand the lack of protection to the iconic species of this vast estuary.

On the current figures it would appear the dusky flathead is the most threatened species, in the Gippsland lakes and recreational anglers can expect no improvement when fishing the Gippsland Lakes unless vigorous action is taken to protect the remaining fish stocks.

Thanks to Fisheries Victoria for having this important bulletin available so early.
*I have only statistics readily available for the last 25 Years