

# fingerling production

## AUSTRALIAN BASS

(*Macquaria novemaculeata*)

### Fingerling Production

Australian Bass are a native Australian species which occur on the Eastern and South Eastern Coastline of Australia. They can be found in rivers lakes and streams from the Mary River in Queensland to the north, right down the NSW coastline and into the tributaries of the Gippsland Lakes in Victoria to the south. Australian Bass are native to all eastern flowing river drainage basins in NSW. They are a catadromous species which means they spend most of their lives in fresh water but migrate to salt water to breed. Unfortunately bass live most of the year in the brackish and freshwater regions of the river systems and between May and August each year migrate downstream into saltwater to breed. Climate change has dramatically effected natural fish stocks in many regions of NSW. Traditionally May-June on the Mid North, Central and Southern Coastal regions use to be a high rainfall time. In recent years the expected high rainfall has not occurred due to climate change and the prolonged drought conditions. This means that the adult bass have not run with the river flows downstream to breed. Without this natural breeding occurring to the previous high levels is dramatically reducing the overall fish stocks within the systems and increases the need for the stock enhancement programs.

At Aquablue we breed Australian Bass for restocking back into the wild. All breeding occurs here at Aquablue Seafood's at Pindimar NSW in the states newest and most modern private bass hatchery. This hatchery was designed to the latest Hatchery Quality Assurance specifications to ensure the fish fingerlings produced are of the highest standard and quality. Stocking Australian Bass into the wild is an activity that needs to be preformed with due diligence. At Aquablue we have developed a business specifically to produce Australian Bass of the highest standard to ensure that the fish stock produced are of the highest quality and will have no adverse effects on the community or the environment. Broodstock for breeding are captured from the wild in the zone that fish are to be restocked into. This ensures there is no genetic mixing of stocks and that the fish stock you receive are native to your river system and will enhance your stocks without any unknown adverse effects. Aquablue seafood's works closely with NSW DPI Fisheries and the Marine Parks Authority on all aspects of the native fish enhancement program. Fish are captured from the wild under a Broodstock Collection Permit. (Broodstock Collection Permit, Section 37, No. P05/0071-2-1.) These fish when captured from up or down the coast are microchipped on capture and returned to our Hatchery for breeding. Adult Bass are bred in filtered seawater in sterilized 1400 litre breeding tanks and records kept of the micro chip numbers of all the parent fish stocks. This allows tractability of all offspring back to the original parents. Fish are bred in batches of approximately 10 females and up to 15 males. This ensures a good genetic mix and a wide gene pool of the fingerlings you receive. This is essential as many of these fish fingerlings released into the wild will later as adults spawn naturally themselves. During the artificial breeding of the adults, blood samples and gonadal fluids of all the breeding fish are taken and sent to the Elizabeth Macarthur Agricultural Institute at Menangle in Sydney for testing.



**Australian Bass fingerlings ready for despatch**



**Hatchery Tanks**



**Adult Bass ready for breeding**



**Injecting Broodstock**



**Bass larva**



**Bass fingerlings ready for stocking**



These blood & fluid samples are used to collect genetic data of the broodstock and also for screening for disease. This ensures that the offspring generated are from good healthy stock and no disease is transmitted from the parents to their offspring.

It is essential to produce good health disease free stock and NSW DPI Fisheries & Biosecurity overseas our breeding activities to ensure that every effort is made to eliminate any possible risks. Once fish are breed they are retained for further testing if required and the young fish produced are kept as individual batches separated from other batches of fish. At approximately 21 days old your stock is sampled and up to 1000 fish from each batch is sent again for disease testing at the Elizabeth Macarthur Agricultural Institute. If the all clear is given the fish fingerlings are on grown to the 20 to 30 mm size range and then harvested. Fish are then held in a recirculation system within the hatchery and treated to ensure no parasites are on the fish. Once again just prior to being supplied to you they are disease tested again and if all clear they are transported to you and we will help you with the release of the fish stock into the wild.

For more information on this program you can contact us or NSW DPI Recreational Fisheries Manager, Mr Craig Watson, Tamworth NSW phone 02 6765 4591 or web: [www.dpi.nsw.gov.au](http://www.dpi.nsw.gov.au) *see recreational fishing section*. Unfortunately this offer closes for expressions of interest on 16<sup>th</sup> March 2007 so it is essential that you act early.

Please consider the above as there are definite benefits for you and your community. If any further information or assistance is required please contact us.



**Bass fingerlings ready for sale**