# Fish Stocking Information

## Planning a stocking program

Many factors interact to determine the success or otherwise of a fish stocking program. Some of these factors are beyond the control of those involved in the program, but still need to be considered when planning the stocking strategy and assessing the chances of the program achieving its aims.

**Key messages**
• Before planning a stocking program, state or territory fisheries authorities should be contacted and ideas discussed.
• The genetic implications of fish stocking should be considered in any breeding and restocking program.
• Interactions with resident fauna (both fish and other animals) can have a major impact on the outcome of a fish stocking program.
• Care must be taken to avoid the transfer of unwanted species and diseases.
• Migratory fish species need special consideration.
• The suitability of the receiving environment (water quality, water temperature etc.) for the selected species should be considered before stocking.
• The 'carrying capacity' of an impoundment will determine how many stocked fish survive and grow.
• Pre- and post-stocking monitoring of impoundments will provide valuable information about the success of stocking programs.

*Legal requirements*

A good starting point when planning a fish stocking program is to find out what restrictions might be placed on stocking activities by the appropriate state fisheries agency. Each state and territory has a number of requirements that must be met before any stocking of fish is allowed, and it is essential to contact the relevant authority to discuss ideas before progressing too far. It would be a waste of time to plan which species to stock and where, only to find that a seemingly good idea fails to meet a basic regulatory requirement.

*Queensland*— permit required from Queensland Fisheries Service (DPI) for any fish stocking in Queensland public waters. No permit is required to stock fish in private waters, but it is an offence to stock fish in contravention of the DPI Translocation Policy.

*Translocation*

• Translocation of fish into new habitats can be beneficial for anglers, but can also cause serious problems for resident species.
• Environmental and biodiversity issues need to be considered.
• It is best to use local species to stock impoundments, as they are adapted to local conditions and are less likely to cause problems for other fish and fauna.

*Genetic considerations*

Genetic issues can vary depending on the reasons fish are being stocked. Very stringent guidelines are required for conservation stockings, however for put, grow and take fisheries genetic considerations, although still important, may be more relaxed.

*Species interaction*

Stocked fish may have adverse effects on resident fish, or vice versa, through predation and competition. This is most likely to occur when stocking involves a non-endemic species. An often quoted example occurred in Lake Victoria, Africa, when non-endemic and highly predatory Nile perch released into the lake led to the rapid decline and, in some cases, extinction of resident fish species upon which local people relied for food and trade.

*Stocking of associated species*

There is a risk that unwanted species could be introduced along with the target stocking species. This may include species that are similar in appearance to the target species, or other fauna that is on or in the target species or in the transport medium. The recent proliferation of non-endemic banded grunter in several impoundments in south-eastern Queensland and in the Clarence River, New South Wales, probably occurred following the stocking of Australian bass fingerlings that were contaminated with banded grunter fingerlings.

*Environmental considerations*

For fish stocking to be successful, the receiving water body must provide all of the basic requirements for growth and survival of the stocked species. That includes good water quality with the appropriate range of temperatures for each species, adequate habitat for feeding and resting, and abundant food in the appropriate size ranges.

Depending on the objectives of stocking, the water body should also be conducive to successful breeding and recruitment. In many Australian impoundments which are managed as put, grow and take fisheries, this latter point is less of a concern as most native sportfish do not breed in dams. However, suitable breeding conditions would be an essential prerequisite in any conservation stocking program where the aim is to establish a self sustaining population.

Many environmental considerations can be adequately addressed simply by stocking only those species that are endemic to the release area. The

Source: http://www.dpi.qld.gov.au/extra/pdf/FAR/Fishstockingmanual.pdf

Fish stocking in impoundments:A best practice manual for eastern and northern Australia
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