

## Little Green Lies

Walter Starck, PhD

The recently announced claims of a dramatic increase in coral trout numbers on protected reefs is a prime example of the misleading claims and poor science that characterises the ongoing mis-management of the Great Barrier Reef and our marine resources generally. Some points worth noting:

- Trout numbers vary considerably from reef to reef and year to year depending upon random variables affecting juvenile recruitment.
- Extensive earlier surveys spanning two decades have generally found little difference in numbers of trout on open and closed reefs.
- The time since closures of the new areas began is insufficient to account for the claimed increase in populations.
- The claims of dramatic increases are based on preliminary results cherry-picked from an incompleting survey.
- Personal communication with scientists involved in the current survey confirms that, as in earlier surveys, the general pattern indicates only marginal differences between open and closed reefs.
- Attributing an increase in numbers to protection without long term evidence, adequate sample size, some measure of fishing effort and full disclosure of findings is simply poor science.
- Any significant fishing pressure should be expected to reduce numbers compared to no fishing pressure. The proper aim of management is to maximise the sustainable yield not maximise the population. Stock will always be greater if none at all are harvested.
- It is a rule of thumb in fisheries management that maximum sustained yield is normally achieved at a population level of about 30 to 40% of the un-fished level.
- Large protected areas concentrate fishing pressure in areas left open and can be expected to increase the differential.
- If expanded protected areas can be shown to have increased the total sustainable harvest they will have been a success. If it is unchanged or reduced and they result in fishermen having to go farther and burn more fuel to fish they are an environmental detriment.
- With a total harvest rate of less than 1% of the broadly accepted and practiced sustainable level for reef fisheries elsewhere the claimed threat of overfishing on the GBR is totally without scientific merit.
- 90% of the GBR is rarely fished or even visited by anyone and is a *de facto* green zone.
- Green zones do nothing to prevent pollution, storms, coral bleaching, or ship groundings. Their sole effect is to prohibit fishing, which is the only economic use of this resource in most areas and is at a level that is far below the sustainable limit.

When management imposes costly and un-needed measures that serve only to increase their own domain and impede productivity it is time for new management.