SUBMISSION NO. 2
Inquiry into the Role of Science for Fisheries and Aquaculture

Submission to the House of Representatives Standing Committee on Agriculture, Resources, Fisheries and Foresty Inquiry into the role of science for fisheries and aquaculture.

arff.reps@aph.gov.au.

On behalf of the Australian Shellfish Quality Assurance Advisory Committee.

Aquaculture is an Australian growth industry. ABARE statistics list the Beach GVP value of the three main bivalve shellfish species in Australia (oysters, mussels and scallops) as over 130 million dollars (ABARE FishStats 2008). All of these shellfish are subject to strict food safety regulations due to their high risk status (see below). Regulation is complex being via state and territory Shellfish Quality Assurance Programs, which are based on the Australian Shellfish Quality Assurance Program (ASQAP) manual. The ASQAP Manual, which is mandated under Standard 4.2.1 of the FSANZ Food Standards Code, is the National guideline for managing risks in the harvesting, relaying, depuration and wet storage of shellfish. The Australian Shellfish Quality Assurance Advisory Committee (ASQAAC) maintains the ASQAP Manual. ASQAAC comprises state shellfish quality assurance program managers, state industry representatives, FSANZ and DAFF. It reports to the Implementation Sub-Committee of the Food Regulation Standing Committee.

Bivalve shellfish are a high risk food group as they are filter feeders and therefore can concentrate contaminant particulates from their environment. Contaminants that potentially impact on human health include pathogenic bacteria and viruses, toxic algae, heavy metals and pesticides. Shellfish quality assurance programs in each Australian State and the Northern Territory monitor and manage the shellfish growing areas based on scientifically developed risk assessment and risk management procedures. Science plays a pivotal role in maintaining the currency of the Australian Shellfish Quality Assurance Program when facing the wide range of issues found in the diverse growing areas around the country. These issues may be on the scale of catchments (e.g. caused by human activities upstream), regions (e.g. changes to the distribution of toxic algae caused by climate change), or Australian wide (e.g. technical trade and market access issues caused by international developments that may or may not be relevant to Australia).

Scientific research often leads to outcomes that have considerable benefits for shellfish quality assurance management, such as the development of remote environmental monitoring equipment or improved laboratory testing methods. Science leads to a better understanding of the risk factors present in waters that grow shellfish commercially; factors that could potentially impact on the health of shellfish consumers. These scientific advances are communicated at scheduled meetings of the ASQAAC, and this body then facilitates the updating of risk management practices which underpins both positive human health outcomes and improved commercial outcomes.

Science plays an integral role in the resolution of potential or actual food safety threats. For example when a shellfish harvest area was closed due to the suspected presence of human viruses, science provided solutions through the development of analytical techniques to detect the viruses in shellfish

and also to trace pollution back to its source. This allows the viral risk to be determined, the pollution source to be remediated and industry to continue operation through the production of safe food.

Science has also assisted to identify were food safety interventions are too conservative resulting in unnecessary restrictions on industry such as the recent research into vibrio's in shellfish, where using novel computerised bacterial growth modelling tools, integrated with time temperature functionality, scientists were able to determine safe storage profiles for both Pacific and Sydney Rock oysters. Scientific review of current guidelines has assisted in cutting red tape without compromising consumer safety.

The success of science in resolving many of challenges faced by this sector can be attributed to the collaborative partnerships between industry, government and research institutes. Developing and maintaining these partnerships ensures that research effectively investigates and resolves problems that impact on industry. Research agencies such as the Fisheries Research and Development Corporation (FRDC) and the Seafood CRC have been instrumental in facilitating these partnerships.

This success provides consumer confidence in the product which then drives growth in the sector which directly underpins regional jobs, economic growth, exports and environmental sustainability.