

## AUSTRALIA

## QUEENSLAND, AUSTRALIA

# Some progress at Sunland hatchery, but serious problems remain

**T**he situation at Gwen Gilson's Sunland Fish Hatchery at Noosa, Queensland, has taken a turn for the better following protocols worked out with Biosecurity Queensland's Principal Veterinary Officer and consulting veterinarian Dr. Matt Landos. Both are members of the Noosa Fish Health Investigation Task Force and Scientific Subcommittee that was set up several months ago to investigate fish kills and deformations in fish larvae that Gwen has attributed to pesticide spraying on a neighbouring macadamia orchard (*See past issues of HI*).

## SUCCESSFUL SPAWNINGS

Using broodstock sourced from outside the Noosa River catchment, uncontaminated water hauled from her other property and ensuring that the whole procedure was carried out inside the Sunland hatchery, she has had three successful spawnings of Australian bass (*Macquaria novemaculeata*) this season and hatched two million larvae.

After 21 days they were moved to her Ringtail Road property's plankton ponds, away from the macadamia farm, where they are thriving. Through mediation, dialogue is also underway with the neighbouring macadamia grower. To get 24-hour notification of spraying, Gwen has had to sign a media ban, which prevents her discussing her hatchery's operation in relation to events that may be associated with the operation of the macadamia farm.

Regardless, she no longer holds any fish in her outside ponds and concerns remain about the compatibility of these two agribusinesses in such close proximity. The risk of spray drift remains high.

Before the ban came into force in August, she confirmed that successful bass spawnings were carried out in the same water in which deformed mullet had been spawned, suggesting that the deformities were in the ova and milt of wild-caught mullet – fish taken by professional fishers at the mouth and estuary of the Noosa River.

## PUBLIC HEALTH ISSUE

But the matter is also a public health issue. Neighbour Denise Weaver moved to the area to grow organic produce. She has had to give up raising poultry because of the deformities she was getting. She now buys her fruit and vegetables at farmers' markets.

"I can smell and taste it when they spray. I had a water test done and there was a positive reading of endosulfan, just below the legal limit. They said they'd check the nut

farmer's log book, but what does that mean?" she said.

The enquiry into the events at Sunland has two elements to it now: the original Taskforce investigation of deformed bass embryos and the deformed embryos of sea run mullet (*Mugil cephalus*) entering the Noosa River estuary to spawn.

The Taskforce made an Interim Report in June. A second interim report is expected in early October, before the Final Report in early 2010.

"We are waiting on some modelling from the Australian Pesticide & Veterinary Medicine Authority (APVMA) based on the data we have been able to provide from the situation at Sunland," said Taskforce Chair Dr. Jim Thompson. "Mullet were collected from the Noosa system and spawned down at (the Department's) Bribie Island facility. Being late in the season, fertility was down, but they didn't find any abnormalities in the embryos. It's inconclusive but the season beat us this year."

## LINGERING CONCERNS

Dr. Landos still has concerns. "Despite flagging the need for controlled experiments many months prior to the Australian Bass spawning season, the opportunity has been let slip. I am surprised given the three years of spray-drift allegations that more investigation effort has not been put at detecting the presence or absence of spray drift in the season now underway. High quality equipment exists for this purpose but has not been deployed. The taskforce has not agreed to put such monitoring equipment in place."

"In contrast the efforts of the EPA are to be applauded for arranging a new sampling program on the Noosa waterways, however there should be more protection afforded to the licence-paying fish hatchery..."

Landos feels it's a waste of time undertaking hypotheticals when solid data are available. "The spray log still hasn't been made available to the Government's Senior Fish Veterinary Pathologist, Dr. Chong or myself. The material tabled thus far, is inadequate to undertake a robust scientific investigation. To assess the risks of the involvement of chemicals we need to know which chemicals were used, at what time, on what day and across which part of the farm, the mixtures of chemicals, the wetting agents used and the concentrations. Without that information it's just not possible to evaluate the risk of spray exposure to the Sunland stock. This lack of disclosure runs contrary to the openness and transparency called for by the Minister... Within a scientific investigation such information is critical to exonerate or incriminate one



Dr. Matt Landos at work.



A deformed, two tailed, sea mullet embryo, spawned from wild-caught parents. (Gwen Gilson copyright)

of the key potential causes identified. Again, it is not possible to do this in an information vacuum."

## BUREAUCRATIC DELAYS

He was also frustrated by the bureaucratic delays in the process. "The APVMA offered to do some modelling of spray drift through their computer. They have been given the layout of the two farms with tree heights and pond locations. That was 10-12 weeks ago... The delays make it difficult to help both the fish hatchery and macadamia farm, when the risks from spray drift remain unquantified."

"The agreement struck between Queensland Premier, Anna Bligh and the Commonwealth Government to reduce agricultural pesticide run-off to the reef was a landmark admission to the scale of the problem at hand. Government have grasped the seriousness of the problem at the reef, however to date, the penny has yet to drop for the impact on our rivers – the nursery lifeblood for inshore fisheries. Pesticides are transported to the reef by the rivers. With ever declining commercial fish harvests, perhaps there should be some greater consideration of the impacts that the higher [pesticide] concentrations are having on our rivers. Reproductive disruption, and thereby recruitment failure is potentially one of the key factors in the fishery declines. To date the taskforce has been entirely underwhelming in its desire to investigate this."

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