



THE Raw Prawn

Eastern king prawns have been stocked in two NSW South Coast lakes to provide an abundant supply of fresh prawns for rec fishers, and valuable fisheries research for scientists. Dr MATT TAYLOR reports.

THE eastern king prawn is a highly sought after species, especially in NSW coastal lagoons where there's abundant prawn habitat accessible to recreational dip and drag netters. About 18 million prawns are harvested annually by Aussie fishos, with more than 65 per cent of these caught in NSW. This equates to about 111 tonnes of prawns a year with eastern king prawns

comprising the bulk of this harvest at around 92 tonnes per year.

In early 2007, the University of NSW and NSW DPI commenced a collaborative research project to develop eastern king prawn stocking in NSW estuaries. This project was funded by saltwater fishing license fees through the NSW Recreational Saltwater Fishing Trust, the Commonwealth Government Recreational Fishing

Community Grants Program, and the Australian Research Council.

As this was the first trial of its kind in Australia, we were a little unsure of what to expect. We initially set out to establish a method for transporting and releasing the prawns with minimal mortality and to identify the ideal habitats for release. We also had to determine the level of predation on stocked prawns. Site selection would be crucial to the program's success with closed lagoons and exceptional water quality important. Nestled between Merimbula and Tathra on the NSW south coast, Back Lake and Wallagoot Lake had all the attributes necessary for the release trials.

Unfortunately there were no aquaculture operators in NSW willing to produce eastern king prawns for release, so the prawns were sourced from Rocky Point Prawn Farm on the Gold Coast. Eastern king prawn post-larvae (about 12-13mm long) were produced from about 60 broodstock caught off the NSW coast. Each batch of prawns had to be screened for diseases before they were cleared for transport into NSW and subsequent release. Prawn post-larvae were counted at the hatchery, packed into bags filled with fresh seawater, and shipped to Sydney by air in foam boxes. The boxes then made a road trip via Canberra to the South Coast lakes. Six million prawns were stocked into Wallagoot Lake and two million into Back Lake during eight stocking trips in January and December 2007.

PhD student Faith Ochwada commenced monitoring on the first day of stocking in both lakes and has been continuing every two months since. Tests have found prawns are still present in the



Back Lake at Merimbula.
One of the two release sites.



lakes in good numbers, with our largest samples numbering several hundred prawns in a tow. Growth, however, has exceeded all expectations, with prawns increasing in weight from 0.005g at stocking to 54g fourteen months after stocking – an increase in weight of over 11,000 per cent! Eastern king prawns have grown better in Wallagoot Lake, but appear more abundant in Back Lake. Back Lake prawns probably represent a mix of wild and hatchery-reared cohorts, as the lake has opened to the ocean a few times since allowing natural recruitment of wild eastern kings. Wallagoot Lake, however, has not been open to the ocean for nine years, and as eastern king prawns are an ocean spawning species all those caught in Wallagoot should be hatchery-reared prawns. Prior to our stocking work it had been many years since an eastern king had been caught in this estuary. Faith's work

has also shown that prawns prefer seagrass habitat to sand/sediment, and also avoid predation when they have access to seagrass. Faith is currently studying the competitive interactions between stocked and wild eastern kings in controlled laboratory experiments.

Our project still has two years left, and Jackie Chan (no, not the kung fu master!) has joined the team to examine the genetic considerations of stocking eastern kings. There's plenty of other research ongoing in regard to prawn stocking.

This is all great news for NSW anglers, with recreational prawners reporting catches up to 6kg in two hours of dip net prawning. On most good nights last season, the shores of the lakes were lit up with lanterns and torches of prawners catching a feed. For those interested in trying the lakes, the best time to prawn is at night a few days before the new moon.

BOTTOM OF PAGE: (1) Eastern king prawns being "counted" at Rocky Point Prawn Farm; (2) Well travelled prawns – boxes containing 1 million eastern king prawn post-larvae in front of Parliament House, Canberra; (3) Matt, Tony and Faith releasing prawns in Wallagoot Lake; (4) A 14 month old stocked eastern king prawn caught in Wallagoot Lake.

Prawns appear to be moving in peak numbers when the moon is at its furthest away from the lakes, or half way between moonset and moonrise. We are hoping to stock once more before the end of 2008, pending funding and stocking permit approval. If you wish to be involved, join our prawn sampling program, or to find out more about the research please contact our Angler Liaison Elke Venstra, on (02) 9385 2118 or email: mulloway@unsw.edu.au.

Many thanks to those members of the eastern king prawn enhancement research team: Faith Ochwada, Jackie Chan, Sam El Hassan, Adrian Ferguson, Iain Suthers, Charlie Gray, Neil Loneragan, Bill Sherwin and Tom Dixon. And thanks to all the volunteers that have helped along the way, especially Greg Liddell, Grant Brewer, Doug Reckford and the team from Bournda Environmental Education Centre; and also to the DPI Fisheries Compliance, Biosecurity and Recreational Fisheries Management teams who assisted in the development of the project.

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