

EDITORIAL

Craig Franklin joins JEB editorial team

Ecologists have been warning of the risks we face from global warming for decades, but it is only in recent years that the role of physiologists as key players in conservation management has begun to emerge. With the opportunities to identify vulnerable species and direct conservation strategies based on sound physiological principles, ecophysiologicals are increasingly beginning to guide the development of conservation strategy. Consequently, the Editors of *The Journal of Experimental Biology* decided to appoint a new member to the editorial team with a strong interest in ecophysiology. After considering several outstanding candidates, the Editors invited Craig Franklin, from The University of Queensland, Australia, to join the team.

Franklin is an established comparative physiologist with a long-term commitment to the Journal as an author and referee.

His expertise is extremely broad, encompassing many approaches in an ecophysiological context. Franklin is also a committed member of the Society for Experimental Biology and Chair of the Animal Section. At the time that he received the invitation from Hans Hoppeler to become a JEB Editor he was in the UK attending a meeting of SEB Council Members. He says 'I was humbled by being asked and excited by the opportunity to give something back to my science and my profession. I view the JEB as the premier journal in my field and I've always been a huge supporter of it.'

Growing up in New Zealand, Franklin was educated at the University of Canterbury, Christchurch, where he obtained his undergraduate degree and PhD while working with Bill Davison. After studying osmoregulation in salmon with Davison, Franklin moved to Peter Davie's lab at Massey University to work on fish vascular systems. While there, he had the opportunity to visit Hawaii to join Peter Hochachka and Tony Farrell to work on tuna. 'That was an incredible experience and intellectually stimulating. Encountering big names in the field was something else,' recalls Franklin. Next, Franklin moved to Gordon Grigg's lab at The University of Queensland to investigate crocodilian hearts. However, within weeks of arriving in Australia, Franklin received a call from Ian Johnston at St Andrew's University, UK. He had been awarded a prestigious Leverhulme Fellowship to go to Scotland and work on the effects of temperature on the swimming performance of fish. Franklin recalls that he had always been fascinated by the work coming out of Johnston's lab, so he asked if he could defer the fellowship for 15 months before joining Johnston.

During the four years that Franklin subsequently spent at St Andrew's, he established a long-term collaboration with Michael Axelsson at Göteborg University in Sweden. 'We were able to look at the complexities of flow patterns in hearts, and one of our biggest wins was showing that in the crocodilian heart there is an active valve that is under adrenergic control and can shut closed. Most hearts have passive valves that open and close with respect to pressure changes, but here was a valve unique to crocodilians that looked like a pair of cog teeth that was under control and was shunting blood away from the lungs,' explains Franklin.

Since returning to Queensland to take up a University Lectureship in 1995, Franklin has continued pursuing his interest in basic physiology, but in more recent years his interests have become more ecological. He is a new leader in the emerging field of conservation physiology and says, 'I believe that physiologists are starting to make a very important contribution to the field of conservation biology'.

Asking the questions that have continually inspired his own research – how do animals deal with changes in their environment and how do physiological systems respond to these changes – Franklin has investigated how aestivating frogs maintain physiological systems during months and even years of inactivity, as well as tracking and recording the physiology of saltwater crocodiles to find out more about how they interact with their environment. From a conservation perspective, Franklin's work on the Mary River turtle, the 20th most endangered species of turtle in the world, showed that rising hypoxia due to stagnation behind the dam would severely impact

hatchling survival and push the species even closer to extinction. Franklin says, 'As physiologists we are not used to having an impact at a conservation-based level but, more and more, we will play a very important role in conservation biology.'

With his eclectic interests and strong field- and laboratory-based research components, Franklin is ideally poised to join the JEB team and strengthen the journal's position in physiological ecology. We are also delighted to reinforce our presence in the Southern Hemisphere with an editor based in Australia who is so passionate about his science. 'Australia has a variety of challenging environments and it really is a playground for a physiologist like me,' says Franklin.



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