

Proceedings of the First International Megapode Symposium, Christchurch, New Zealand, December 1990

R.W.R.J. Dekker & D.N. Jones (eds)

Dekker, R.W.R.J. & D.N. Jones (eds). Proceedings of the First International Megapode Symposium, Christchurch, New Zealand, December 1990.

Zool. Verh. Leiden 278, 31.xii.1992: 1-78, 1 plate, figs. 1-14, tabs. 1-2.— ISSN 0024-1652/ISBN 90-73239-09-5.

Key words: Megapodiidae; Galliformes; Aves; phylogeny; incubation strategies; mating systems; bibliography.

René W.R.J. Dekker, National Museum of Natural History, P.O. Box 9517, 2300 RA, Leiden, The Netherlands.

Darryl N. Jones, Division of Australian Environmental Studies, Griffith University, Nathan, Queensland 4111, Australia.

Contents

Contents	3
Introduction	3
Current studies on megapode phylogeny (Brom, T.G. & R.W.R.J. Dekker)	7
Megapode phylogeny and the interpretation of incubation strategies (Dekker, R.W.R.J. & T.G. Brom) ...	19
An evolutionary approach to megapode mating systems (D.N. Jones)	33
Mate choice in Australian brush-turkeys <i>Alectura lathami</i> : A preliminary report (S. Birks)	43
The Micronesian megapode <i>Megapodius laperouse</i> : Conservation and research needs (Stinson, D.W. & P.O. Glass)	53
Bibliography of the Megapodiidae (Dekker, R.W.R.J. & D.N. Jones)	57

Introduction

The publication of the Proceedings of the First International Megapode Symposium, held in December 1990 as part of the 20th International Ornithological Congress (IOC) in New Zealand, represents a milestone in the scientific study of this unique family of birds. Not only are these papers evidence of the breadth of interest in the group, but their publication in this form is indicative of the level of organization that currently exists among what is admittedly a relatively small number of workers. Although the megapodes have fascinated naturalists and scientists for centuries, this interest has become truly international and multidisciplinary mainly during the last decade. For the most part, however, the workers involved in these studies laboured largely independently and with little contact.

The initiative of bringing together the people engaged or interested in the megapodes clearly belongs to the late Prof Dr Klaus Immelmann, Professor of Ethology at the University of Bielefeld in Germany. It was during the 19th IOC in Ottawa, June 1986, that Klaus, despite his duties as President of the IOC, became aware of a number of participants with presentations relating to megapodes. Having recently completed a detailed study of the behaviour of the malleefowl *Leipoa ocellata* in central

Australia, Klaus was keen to discuss his enthusiasm with like-minded ornithologists. An informal meeting with a number of these people indicated that a larger number workers other than those at the IOC existed. Such was the rapport among the participants and the quality of their new information that Klaus envisioned a meeting of megapode workers from around the world, with the objective of establishing professional and personal contacts and facilitating discussion and debate about the birds.

With his astounding efficiency and alacrity, Klaus hosted such a meeting at Bielefeld, only six months after the Ottawa IOC. Sponsored by the Centre for Interdisciplinary Research, this meeting was to have a major impact on the future direction and development of megapode research. Although entitled "Mechanisms of very early development in animals and man", it was the first meeting ever held which concentrated primarily on megapodes. And because of the nature of the participants, the meeting exposed the group to a much wider scientific audience.

The Bielefeld meeting led directly to two important developments: the formation of the Megapode Specialist Group, and the launch of the Group's journal "The Megapode Newsletter". At the time of the first circular announcing the start of the Group, the membership consisted of 33 members. At the present time Newsletters are distributed to 70 members in 17 countries.

We left Bielefeld full of enthusiasm and plans, especially concerning the proposal for a megapode symposium at the next IOC. Klaus, as a member of the Permanent Executive Committee of the IOC, was very keen to see this occur. The future looked bright.

It was with profound shock, then, that we learned of the death of Klaus Immelmann on September 9th, 1987. Without question the impetus of the fledgling Megapode Specialist Group had been due to his efforts. It was, of course, a superprecocious hatchling and progress and maturity have been rapid; this publication marks the latest of these developmental stages.

It is with great affection and honour that these Proceedings are dedicated to the memory of Klaus Immelmann.

Darryl Jones & René Dekker
April 1991

The symposium and proceedings were sponsored by the World Pheasant Association and an anonymous sponsor.



Photo 1. Australian Brush-turkey *Alectura lathami*, male during booming vocalization, Mt. Tamborine, Queensland, October 1983. Photo by Darryl N. Jones.



Photo 2. Sula Megapode *Megapodius bernsteinii*, Taliabu, Indonesia, September 1991. The first picture ever published. Photo by Rob Lucking (University of East Anglia Taliabu Expedition).