

CHRISTMAS ISLAND AND COCOS (KEELING) ISLANDS: BIODIVERSITY AND MANAGEMENT CHALLENGES

Editors:
 Tan Heok Hui
 Max Orchard
 Peter F. Davie
 Peter K. L. Ng

CONTENTS

Preamble for volume. Peter K. L. Ng and Tan Heok Hui	1
Christmas Island and Pulu Keeling expeditions 2010 to 2012: expedition report. Tan Heok Hui, Peter F. Davie and Peter K. L. Ng	3
Christmas Island and Pulu Keeling expeditions 2010 to 2012: field work and locality records. Tan Heok Hui, Tan Siong Kiat, Tan Kai-xin, Joelle Lai Chiu Yun, Jose Christopher Mendoza and Tan Swee Hee	7
Conservation management of the terrestrial biodiversity of Christmas Island: challenges and perspectives. Michael Misso and Judy West	17
The conservation management of Pulu Keeling National Park: challenges and perspectives. Michael Misso and Ismail MacRae	24
Subterranean fauna of Christmas Island: habitats and salient features. William F. Humphreys	29
Progress in eradicating cats (<i>Felis catus</i>) on Christmas Island to conserve biodiversity. Dave Algar, Neil Hamilton and Caitlyn Pink	45
Baiting effectiveness for introduced rats (<i>Rattus</i> sp.) on Christmas Island. Andrea Coddou, Harriet Mills, Neil Hamilton and Dave Algar	54
Foraging movements of Abbott's Boobies during early chick-rearing and implications for a marine Important Bird Area in Christmas Island waters. Janos C. Hennicke and Henri Weimerskirch	60
The other subpopulation of Christmas Island White-eye <i>Zosterops natalis</i> (Aves: Zosteropidae): a historic introduction has led to an enduring subpopulation on Horsburgh Island, Cocos (Keeling) Islands group. John C. Z. Woinarski, T. Detto and Ismail MacRae	65
Recent collections of centipedes from Christmas Island (Myriapoda: Chilopoda). Julianne M. Waldock and John G. E. Lewis	71
The impact of aerial baiting for control of the Yellow Crazy Ant, <i>Anoplolepis gracilipes</i> , on canopy-dwelling arthropods and selected vertebrates on Christmas Island (Indian Ocean). Nigel E. Stork, R. L. Kitching, N. E. Davis and K. L. Abbott	81
Discovery of the flightless marine midge <i>Pontomyia</i> (Diptera: Chironomidae) at Christmas Island, Australia. Lanna Cheng and Danwei Huang	93
Salt and water balance in the land crabs of Christmas Island: a review. Lucy M. Turner	97

The systematics of the land crabs of the <i>Discoplax hirtipes</i> (Dana, 1851) species-group (Crustacea: Decapoda: Brachyura: Gecarcinidae), with description of a new species from the eastern Indian Ocean. Peter K. L. Ng and Hsi-Te Shih	109
Morphometric characterisation of a population of adult coconut crabs <i>Birgus latro</i> (Decapoda: Anomura: Coenobitidae) from Christmas Island in the Indian Ocean. Christiana Anagnostou and Christoph D. Schubart	136
The population structure of <i>Birgus latro</i> (Crustacea: Decapoda: Anomura: Coenobitidae) on Christmas Island with incidental notes on behaviour. Michelle M. Drew and Bill S. Hansson	150
Positive conservation outcome from religious teachings: changes to subsistence turtle harvest practices at Cocos (Keeling) Islands, Indian Ocean. Ismail MacRae and Scott Whiting	162
Sea turtles of the Cocos (Keeling) Islands, Indian Ocean. Scott Whiting , Ismail MacRae , Robert Thorn , Wendy Murray and Andrea U. Whiting	168
Checklist and new records of Christmas Island fishes: the influence of isolation, biogeography and habitat availability on species abundance and community composition. Jean-Paul A. Hobbs , Stephen J. Newman , Gabby E.A. Mitsopoulos , Michael J. Travers , Craig L. Skepper , Justin J. Gilligan , Gerald R. Allen , Howard J. Choat and Anthony M. Ayling	184
Fishes of the Cocos (Keeling) Islands: new records, community composition and biogeographic significance. Jean-Paul A. Hobbs , Stephen J. Newman , Gabby E.A. Mitsopoulos , Michael J. Travers , Craig L. Skepper , Justin J. Gilligan , Gerald R. Allen , Howard J. Choat and Anthony M. Ayling	203
Hybridisation among coral reef fishes at Christmas Island and the Cocos (Keeling) Islands. Jean-Paul A. Hobbs and Gerald R. Allen	220
A new record of <i>Trimma fasciatum</i> Suzuki, Sakaue & Senou, 2012 (Perciformes: Gobiidae) from Christmas Island, Indian Ocean, Australia. Tan Heok Hui	227
The Axiidea (Crustacea, Decapoda) of Cocos (Keeling) and Christmas Islands, with description of a new species of <i>Eucalliax</i> Manning & Felder, 1991. Peter C. Dworschak	230
Stomatopod crustacea of Christmas Island and the Cocos (Keeling) Islands. Shane T. Ah Yong	246
Porcellanidae (Crustacea: Decapoda: Anomura) from Christmas and Cocos (Keeling) Islands. Masayuki Osawa	255
A new family, genus and species of cavernicolous crab (Crustacea: Decapoda: Brachura: Pseudozioidea) from Christmas Island, Australia. Tohru Naruse and Peter K. L. Ng	263
New rock crab records (Crustacea: Brachyura: Xanthidae) from Christmas and Cocos (Keeling) Islands, Eastern Indian Ocean. Jose Christopher E. Mendoza , Robert M. Lasley Jr. and Peter K. L. Ng	274
On the crabs of the genus <i>Pseudozius</i> Dana, 1851 (Crustacea: Brachyura: Pseudoziidae) from Christmas Island and the Cocos (Keeling) Islands. Jose Christopher E. Mendoza and Peter K. L. Ng	301
The lobsters of Christmas Island and Cocos (Keeling) Islands, with new records of <i>Palinurellus wieneckii</i> (De Man, 1881) and <i>Enoplometopus voigtmani</i> Türkay, 1989 (Crustacea: Decapoda: Palinuridae, Scyllaridae, Enoplometopidae). Peter K. L. Ng and Tohru Naruse	305
Checklist of the Mollusca of Cocos (Keeling) / Christmas Island ecoregion. Tan Siong Kiat and Martyn E. Y. Low ...	313
The status of hard coral diversity at Christmas Island and Cocos (Keeling) Islands. Zoe T. Richards and Jean-Paul A. Hobbs	376
Optimal monitoring of coral biodiversity at Christmas Island. Nicole M. Ryan , Zoe T. Richards and Jean-Paul A. Hobbs	399

Observations on the fauna from submarine and associated anchialine caves in Christmas Island, Indian Ocean Territory, Australia. **Tan Heok Hui, Tohru Naruse, Yoshihisa Fujita and Tan Siong Kiat**406

An annotated bibliography of the research on marine organisms and environments at Christmas Island and the Cocos (Keeling) Islands. **Jean-Paul A. Hobbs, Darren J. Coker, Peter T. Green, David J. James, William F. Humphreys, Ian A.W. McAllan, Stephen J. Newman, Morgan S. Pratchett, Timo M. Staeudle and Scott D. Whiting**419