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# Preface

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In Frank Schatzing's epic science fiction thriller, *The Swarm*, the oceans bite back. From destructive seabed worms to murderous whales, from leaching methane hydrates and underwater land-slides to massive tsunamis that wipe out much of the populated world, from armies of toxic jelly fish and marauding crabs to the mysterious 'yrr', the oceans and their inhabitants wage war against the very humanity that emerged, along with them, from the primordial soup. And who can blame them? Humans have not exactly been kind to the oceans. We have helped ourselves to their resources. We have used them as highways for our unbridled expansion across the earth's surface. We have turned them into dumping grounds, theatres of war, objects of inspiration and wonder and objects of fear, loathing and derision. Through all of this the oceans have stood by us, impressing us with their apparently limitless capacity to provide, inspiring us with their apparently unfathomable depths, and reassuring us with their apparently infinite ability to weather every storm, be it natural or human induced, literal and metaphorical, that comes their way.

Of course, in *The Swarm*, humanity wins – or is at least granted a reprieve from total annihilation. But real life seldom has the happy endings that sell popular fiction and keep movie-goers rapt in an endless suspension of disbelief. In real life bad things happen; and as the chapters in this *Handbook* chronicle, they are happening to the oceans. More than 85 per cent of the world's fish stocks are either fully exploited or over-exploited. Ever increasing numbers of marine species are threatened or endangered as a result of human activities. Destructive fishing practices, ship source pollution, marine debris, noise pollution, construction of artificial islands and pipelines, offshore oil and gas exploration, seabed mining, bioprospecting and marine scientific research all present increasing threats to the health and well-being of the oceans. Add to these the increasingly negative effects of climate change and ocean acidification and the picture becomes bleak indeed.

It is entirely possible for the oceans to exist without humans. However, it is probably not possible for humans to continue to exist on this earth without the food, ecosystem and other services the oceans provide. So it is not only important, but absolutely imperative that we respect, care for and provide for the oceans as they have cared and provided for us. This *Handbook* is in part about the misuse of the oceans. But it is also about giving back to the oceans through contributing to the design and implementation of effective regulation and management of human activities that perturb the marine environment.

The chapters in this *Handbook* are intended to provide a critical survey of the current state of legal research in selected issue areas relating to the legal regime for the protection of the marine environment. The authors were also tasked with going beyond a mere survey of existing law to identify legal lacunae and areas of critical research need for filling those lacunae. Given the potential breadth of the topic and the need to keep the book to a manageable size, hard decisions were necessary as to content and

focus. A comprehensive global study of marine environmental law writ large could be expected to fill many volumes. The first decision was thus to restrict consideration to the international legal regime for the protection of the marine environment. Even here, an astute reader might question the comprehensiveness of this volume omitting, as it does, dedicated chapters on important topics such as control of alien invasive species, noise pollution, marine genetic resources, emerging techniques for area based management, protection of vulnerable marine ecosystems, and a number of major regional frameworks. However, the more astute reader will notice that each of these topics is, in fact, addressed in the chapters which are presented under the general rubrics of the legal framework for protection of the marine environment, pollution of the marine environment, seabed activities and the marine environment, protection of marine biodiversity, regional approaches to the protection of the marine environment and climate change and the marine environment. Together, it is hoped that these chapters provide both a representative and extremely thorough, even if not entirely comprehensive, analysis of the critical issues in the spotlight today and that by doing so they will shed some light on the way forward towards ensuring the health and fecundity of the oceans for generations to come.

As with any edited volume, this *Handbook* would not have been possible without the generosity, understanding and hard work of the authors who have persevered with the project even in the face of innumerable delays, or what has elsewhere euphemistically been referred to as a 'lengthy incubation period'. Preparation of the volume has taken place within the law faculties at two institutions, UNSW Australia (formerly known as The University of New South Wales), my home institution, and Lund University, where I am fortunate to enjoy a conjoint visiting professorship. I am indebted to my colleagues at both institutions for their intellectual companionship and the stimulating and interesting environments in which I work. I am grateful to Ms Anisa Kozoei at UNSW Australia for providing general editorial assistance and, finally, I am indebted to Ben Booth and Laura Mann at Edward Elgar for their vision for and support of this project and for their patience in seeing it through to fruition.

Rosemary Rayfuse  
Sydney and Lund  
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