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Research highlights from *Regional Studies in Marine Science*

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Volume 1 of *Regional Studies in Marine Science* was published in March 2015 and we are on-track to publish Volume 6 in July 2016. Here, the Editors-in-Chief look back on the past year to examine the breadth and depth of the studies that have been published. We are gratified by the outstanding level of support and interest, which shows that the journal is filling an important niche. We have already handled 360 scientific papers, of which around 40% have been accepted for publication.

Whilst many marine journals (e.g. our sister journal [Marine Pollution Bulletin](#)) reject papers that have a very regional focus, we have made an effort to accept such manuscripts as long as they are well written and scientifically sound. After all, regional research informs a wider understanding of global processes and can be vital to local marine management decisions. The journal [website](#) sets out the scope of the journal, and [Leung et al. \(2015\)](#) describe our ethos. Our broad aim is to publish scientific studies of local interest and importance to a region, even if the issues are transboundary in nature ([Lauenstein et al. 2015](#)). It has been heartening to receive high-quality manuscript submissions from all over the world and it has also been a privilege to engage with our editorial board and the referees to see the range of contemporary marine research.

There has been a strong flow of manuscripts from native English speaking regions, which have always been well represented in the Elsevier portfolio of marine journals. What is interesting, and a strength of *Regional Studies in Marine Science*, is that ground-breaking work from non-native English speaking regions of the planet is being published alongside; we are currently handling papers from marine scientists in nations as diverse as Argentina, Australia, Brazil, Belgium, Bermuda, Canada, China, Costa Rica, Egypt, Germany, Ghana, Greece, Iceland, India, Indonesia, Italy, Iran, Japan, Madagascar, Malaysia, Malta, Mexico, Mozambique, Oman, Norway, the Philippines, Portugal, Puerto Rico, Qatar, Russia, Spain, Sri Lanka, Sweden, and the USA. It would be wonderful to obtain papers from all maritime nations, so come on Namibia and New Zealand!

Figure 1 provides a snapshot from February 2016 of corresponding author locations; the largest dot represents a dozen papers led by Japanese authors, many of which were part of a special issue edited by Kazuhiro Sakai and Sylvain Agostini. This drew together research from an integrated network of Japanese marine biology stations ([Inaba, 2015](#)). The special issue delves into the past - revealing how fossil burrows (Seike et al. 2015) and bryozoans (Fortunato 2015) can help us interpret palaeoconditions to inform predictions of future change. A topical study on coral bleaching revealed the stress that excess nutrients can exert on corals (Higuchi et al. 2015) and work at a set of volcanic CO₂ seeps has unveiled exciting opportunities for assessing effects of ocean acidification in Asia (Agostini et al. 2015). The symposium included work by local scientists on the amounts of dissolved organic matter released by macroalgae (Wada et al. 2015) and on the benthic ecology and biodiversity of the region (Kon et al. 2015; Nakano et al. 2015). Research presented at the symposium also involved international collaborations, providing insights into the control of parasitic infections of farmed grouper in Indonesia (Palm et al. 2015) and on the effects of monsoons on planktonic copepod community structure on Malaysian coral reefs (Nakajima et al. 2015).



Figure 1. Geographical location of corresponding authors of papers published in *Regional Studies in Marine Science* in March 2015 – April 2016.

We will continue to support the organization of symposia, as these catalyse discussions that lead to new insights. Our second special issue was edited by Kenneth Schiff and describes long-term marine environmental monitoring programmes in the USA (Schiff et al. 2016). The assembled studies reveal examples of best-practice in adaptive coastal management (Trowbridge et al. 2016) and shine a light on regions where monitoring has led to environmental improvements to historically degraded coastal ecosystems, such as those of

Chesapeake Bay (Tango & Batiuk 2016), the Tampa Bay estuary (Sherwood et al. 2016) and San Francisco Bay (Briggs 2016).

The United States is currently dominating downloads of papers published by *Regional Studies in Marine Science*, perhaps due to the quantity of interesting papers coming out from that region, such as new methods of echinoderm tagging (Rodriguez-Barreras & Wangensteen 2016), work investigating the metabolism of corals off Florida (Towle et al. 2015), benthic community shifts with depth off North Carolina (Wilson-Freshwater et al. 2016), and the links between fish nursery grounds and reefs in the Florida region (Gerard et al. 2015). There is also plenty of research coming out in the journal that involved US scientists collaborating overseas, such as on a study of juvenile fish in Ghana's mangroves (Levy et al. 2015) and of contaminants in conch off Puerto Rico (Whitall et al., 2016).



Figure 2. Number of *Regional Studies in Marine Science* article downloads from March 2015 – April 2016. The size of ball indicates the number of downloaded full-text articles from ScienceDirect.

Even more interesting than the global spread of science that has been published and uploaded within the first year of the journal is the sheer range of topics covered. This outpouring of new ideas, data and perceptions provides a great cross section of contemporary marine research interests both in coastal habitats and far offshore.

A few studies have taken a physicochemical or geomorphological approach, such as work on recent sea level history and coastal morphology (Camargo et al. 2015), remote sensing work investigating primary production in the Sargasso Sea (Tin et al. 2016) and on the storage of high levels of arsenic within coralline algal deposits (Mirlean et al., 2016). Many more papers have been more purely biological in nature, with a focus on specific taxa, such as estuarine ciliates (Rakshit et al. 2016) and the

seasonal dynamics of pelagic amphipods (Abe et al., 2016). We have also been able to learn about the ocean going research into the behaviour and distribution of eel larvae (Miller 2015) and the life history of amphidromous fish (Iida et al. 2016). Other pelagic work has concentrated on regional biodiversity and abundance of micro-, phyto- and zooplankton in unusual places (Seguro et al. 2015), or in habitats that are not usually assessed for plankton (Arumugam et al., 2016) or using novel methods under difficult circumstances, such as seasonally ice-bound areas (Arima et al. 2015).

Examples of biological studies on the benthos includes a detailed study of sponges off Greece (Keflas et al. 2016), an assessment of human impacts on beach and sand dune dwelling ghost crabs (Jonah et al. 2015) and work on the diet of sea urchins (Rodriguez-Barrera et al. 2015). Research into demersal fish includes new reports on the sustainable post-larval capture of tropical aquarium fish (Jaonalison et al. 2016) and investigations into population connectivity of damselfish using their otoliths (Daros et al. 2016). There have been some very useful data sets produced on the diversity and distribution of fish in shallow coastal regions that have been seldom (if ever) studied before. These include work in Suriname (Willems et al. 2015), Tanzania (Kruse et al. 2016), Brazil (Araújo et al. 2016) as well as in deeper waters off Malta (Terribile et al. 2016).

Several studies relate to aquaculture, such as work on larval dispersal and settlement for mussel culture (Fuentes-Santos & Labarta 2015) and tag and release experiments with abalone to determine the best seasons for growth (Waal et al., 2016). Others have been working on the population dynamics of wild caught invertebrate species such as tropical and cold-water shrimp (Garcia et al., 2016; Jónsdóttir et al. 2016) and holothurians (Hair et al. 2016). Perhaps not surprisingly, given their socioeconomic importance, we have received a great deal of manuscripts dealing with commercially important fin-fish. This includes research into the ecological implications of recreational angling (Pranovi et al. 2016) although the bulk of this research has involved investigations of the biological data that are obtained from landings and the by-catch associated with trawl and long-line fisheries around the world (Al-Abdulrazzak et al. 2015; Mion et al. 2015; Velip & Rivonker 2015; Domingues et al., 2016; Paighambari & Eighani 2016; Purusothaman et al. 2016; Rizkalla et al. 2016). The Rizkalla et al. (2016) study highlights the remarkable spread of non-indigenous species along the Mediterranean coast of Egypt via the Suez canal. Other researchers have shown that better management of marine protected areas is needed to maximize benefits for overall biodiversity (Bobiles et al. 2016) and assemblages of commercially important fish (Muallil et al. 2015). Work has also shown that conservation areas can provide much needed protection for small ranging individuals, such as juvenile reef sharks (Speed et al. 2016) or nesting turtles (Pazira et al. 2016).

Many of the newly published papers catalogue the prevalence of eutrophication (Acquavita et al. 2015; Tang & Wong, 2016) and the effects of harmful algal blooms

in coastal waters (Garcia-Altarets et al. 2016) including toxic effects on seafood (Rañada et al. 2016). The journal is also starting to pick up on troublesome emerging issues, such as antibiotic resistance in the marine bacteria of coastal waters in India (Sneha et al. 2016). It has been interesting and instructive to see the range of approaches adopted by different research groups; for example some tackle the physical dynamics and/or ecology of particular systems such as comparisons of ecosystem structure between different fjord systems (Petersen et al. 2016) or the effects of river outflow on the functioning of the Great Barrier Reef (Jones et al. 2016). Others focus on the ecosystem functioning of particular biogenic habitats, such as tropical seagrass beds (Wahyudi et al. 2016), temperate macroalgal meadows (Koulouri et al. 2016), impacted vs. 'pristine' mangrove ecosystems (Levy et al. 2015; Nogueira et al. 2015; Balakrishnan et al. 2016; Eid & Shaltout 2016) and oyster beds (Smyth et al. 2016).

Some researchers report on toxicity tests, for example on the effects of herbicides on crabs and fish in laboratory conditions (Ali et al. 2015; Alvarez et al., 2015) or on the growth and condition of clams in the wild (Scarlet et al. 2015) and levels of a range of potential pollutants found in commercially important bony fish (Matsumoto et al. 2016), turtles (Dyc et al. 2015) and elasmobranchs (Sandoval-Herrera et al. 2016). Many of the papers that have been published over the past year report on the effects of sediment run-off from the land and on the contamination of suspended particulates and seabed deposits by heavy metals and trace elements (Alyazichi et al. 2015; Scanu et al. 2015; Costa et al., 2016; Hakspiel-Segura et al. 2016; Zhang et al. 2016). There has also been extensive new work on the effects of the microbial loop on metal toxicity (Bitencourt et al. 2016), the uptake of toxins by plastic microbeads used in cosmetics (Boucher et al., 2015) and on the levels of organotins in coastal habitats (Deng et al., 2015) and the effects of other contaminants such as marine debris (Zhao et al. 2015; Arun Kumar et al. 2016) and shipwrecks (Turner & Rees, 2016), all revealing the worldwide prevalence of these issues.

Some of the papers report on the local effects of global changes, such as long-term variability in the temperatures of the Arabian Sea and the Bay of Bengal (Kumar et al., 2016), the effects of ocean acidification in the Mediterranean (Lacoue-Labarthe et al. 2015), the effects of warming on the spread of invasive zooplankton (Rowe et al., 2015) and the effects of warming on fish populations in the Barents Sea (Eriksen et al. 2015). We have also enjoyed editing papers that tackle what options need to be put in place now to allow the coastal communities of Mankind to adapt to climate change (Sano et al. 2015) and offer realistic solutions to protect wildlife from human impacts such as the work on small changes in shipping practices off Sri Lanka to protect blue whale populations (Priyadarshana et al. 2016).

We are putting finishing touches to a special issue coming up soon that will highlight the marine science that has historically taken place around marine ports worldwide. This volume will flag best practices going forwards. A new special issue opportunity entitled '**Fisheries and Marine Sciences to Build Indonesia's Blue Economy**' will

be edited by Agung Dhamar Syakti and Pierre Doumenq. The volume has a 1 June 2016 submission deadline and will contain original research articles to address the following issues:

1. Aquatic resources for national food security
2. Aquaculture engineering
3. Biodiversity and bioprospecting for Fisheries and Marine Resources
4. Integrated management of coastal and marine areas and conservation
5. Marine Pollution
6. Seas as the world's climate buffer
7. Social-economic aspect of fisheries
8. Coastal community empowerment

The success of the past year was largely dependent on the efforts of the referees which we would like to thank wholeheartedly, especially those reviewers that assisted with multiple manuscripts.

In summary, *Regional Studies in Marine Science* has got off to a flying start in terms of the breadth, depth and quality of research presented to us and our readers. From the onset this is proving to be a journal that captures emergent issues as well as collating information from a truly international research community.

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