

## Editor's note

The coastal zone spans both land and water, extending landward up to the highest water line that occurs on shore during storms and seaward to the point at which storm waves no longer move sediments on the seafloor. The specific contact line between land and sea is the shoreline and adjacent land is considered the coast. Coastal zones are ecologically important areas that support economic development but are also threatened by various human-induced pollutants (e.g., wastewater discharge, oil spills). Moreover, global climate changes (increased temperatures and sea level rise) have accelerated shifts in coastal ecosystems. Declines in the biodiversity of coastal waters have been reported worldwide and have significant impacts on coastal ecosystem function and biogeochemical cycles.

The coastline of China is approximately  $1.8 \times 10^4$  km long. In China, high human population densities in coastal areas ( $>800$  ind  $\text{km}^{-2}$ ) and rapid economic development since the 1978 economic reforms have resulted in major anthropogenic impacts along the coastline. For example, in 2011 over  $1.7 \times 10^8$  t of pollutants were discharged into Chinese coastal seas from rivers (National Marine Environmental Condition Bulletin, State Oceanographic Administration, 2011). Chinese coastal ecosystems and their associated biodiversity are threatened by increasingly global and regional environmental changes and human activities.

This special topic is devoted to changing biodiversity patterns in the Chinese coastal zone. The 7 papers cover one topic: Change of Biodiversity Patterns in Coastal Zone [1–7]. The inspiration for this topic was the First Workshop on Coastal Bio-resources Research and Development held in the Yantai Institute of Coastal Zone Research, Chinese Academy of Sciences in 2011. With the help of the *Chinese Science Bulletin*, we hope that this special topic will showcase the latest research on coastal biodiversity distribution patterns in China highlighting progress that has been made, and that it will also promote communication and cooperation in this field.

- 1 Tang B P, Zhang D Z, Ge B M, et al. Sustainable utilization of biological resources from coastal wetlands in China. *Chin Sci Bull*, 2013, 58: 2270–2275
- 2 Guo J, Liu X, Xie Q. Characteristics of the Bohai Sea oil spill and its impact on the Bohai Sea ecosystem. *Chin Sci Bull*, 2013, 58: 2276–2281
- 3 Zhang Y, Han J Y, Mu J, et al. Bioactivity and constituents of several common seaweeds. *Chin Sci Bull*, 2013, 58: 2282–2289
- 4 Zhang Y, Mu J, Feng Y, et al. Biological and chemical diversity of cytotoxin-producing symbiotic marine fungi in intertidal zone of Dalian. *Chin Sci Bull*, 2013, 58: 2290–2297
- 5 Zhao J, Jiang P, Liu Z, et al. The Yellow Sea green tides were dominated by one species, *Ulva (Enteromorpha) prolifera*, from 2007 to 2011. *Chin Sci Bull*, 2013, 58: 2298–2302
- 6 Li L, Lu S H, Jiang T, et al. Seasonal variation in size-fractionated phytoplankton in the Pearl River estuary. *Chin Sci Bull*, 2013, 58: 2303–2314
- 7 Hou L, Dahms H, Dong C Y, et al. Phylogenetic positions of some genera and species of the family Buccinidae (Gastropoda: Mollusca) from China based on ribosomal RNA and COI sequences. *Chin Sci Bull*, 2013, 58: 2315–2322

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