### Diplomacy for the world’s hottest sea

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**Title:** Diplomacy for the world’s hottest sea

**Authors:** Nadia Al-Mudaffar Fawzi\(^1\), Clare M. Fieseler\(^2\*\), Brian Helmuth\(^3\), Alexandra Leitão\(^4\), Mehsin Al-Ainsi\(^5\), Mohammad Al Mukaimi\(^6\), Mohammad Al-Saidi\(^7\), Fahad Al Senafi\(^6\), Ivonne Bejarano\(^8\), Radhouan Ben-Hamadou\(^4,5\), Josh D’Addario\(^9\), Ahmad Mujithaba Dheen Mohamed\(^5\), Bruno W. Giraldes\(^4\), Lyle Glowka\(^10\), Maggie D. Johnson\(^11\), Brett P. Lyons\(^12\), Daniel Mateos-Molina\(^13\), Christopher D. Marshall\(^14,15\), Sayeed Mohammed\(^16\), Pedro Range\(^4\), Mohammad Reza Shokri\(^17\), John M.K. Wong\(^18\), Nicholas D. Pyenson\(^2\)

**Affiliations:**

\(^1\)Marine Science Centre, University of Basrah, Basra, Iraq

\(^2\)National Museum of Natural History, Smithsonian Institution, Washington, DC

\(^3\)School of Public Policy and Urban Affairs, Northeastern University, Boston, MA, USA

\(^4\)Environmental Science Center, Qatar University, Doha, Qatar

\(^5\)Department of Biological and Environmental Sciences, College of Arts and Sciences, Qatar University, Doha, Qatar

\(^6\)Marine Science Department, College of Science, Kuwait University, Kuwait City, Kuwait

\(^7\)Department of International Affairs, Qatar University, Doha, Qatar

\(^8\)Biology, Chemistry, and Environmental Sciences Department, American University of Sharjah, Sharjah, United Arab Emirates

\(^9\)The Open Data Institute, London, United Kingdom

\(^10\)Biodiversity Strategies International, Abu Dhabi, United Arab Emirates

\(^11\)Red Sea Research Center, Biological and Environmental Sciences and Engineering Division, King Abdullah University of Science and Technology, Thuwal, Kingdom of Saudi Arabia
Countries that border the Persian or Arabian Gulf (hereafter “Gulf”) are adopting ambitious global commitments to protect their marine environments (1). The United Arab Emirates (UAE) has committed to protecting 30% of their lands and waters, with other Gulf states expected to soon join. Gulf countries will not meaningfully meet these and other global commitments (e.g., post-2020 biodiversity framework) without rebuilding trust, exchanging knowledge, and jump-starting conservation coordination across their maritime boundaries. Gulf scientists have an overlooked role in this work.

The Gulf’s political boundaries are crowded among Bahrain, Iran, Iraq, Kuwait, Oman, Qatar, Saudi Arabia, and the UAE, making the regional networking of marine protected areas
(MPAs) critical to system-wide conservation success (2). During the summer, the Gulf is the world’s hottest marine system, with many organisms living near their physiological limits (3,4). The Gulf is a global hot spot for coastal development and desalination, causing further declines to coral reefs and sea grass meadows (5-7), as well as direct threats to dugongs and other transboundary species.

In contrast to remote and largely uninhabited ecosystems, like Antarctica, highly degraded ecosystems are overlooked settings for advancing science diplomacy (8,9). The softening of political tensions between many Gulf countries opens possibilities. First, we recommend regional funding for collaborating scientists to pursue networked Gulf studies. Second, we recommend establishing Gulf-wide peer networks among scientists that build trust through data sharing, strengthening relationships for “data diplomacy” (10). Third, scientists should collaborate with capable boundary organizations that can facilitate the planning of future transboundary MPAs, an intervention critically needed in the Gulf (11).

Scientists and international institutions are not reliant on formal diplomatic channels to act (12). Starting now creates a foundation for co-producing state-led ocean science diplomacy in the coming decades, as the region enters a new era of peace and ocean protection.

References and Notes

1. The name of this water body remains contentious. The one-word name “Gulf” is used here, as previous publications have done, to omit any geographic descriptors that detract from a productive dialogue. “Inner Gulf of the ROPME Sea” or “ROPME Sea Area” are names accepted by all coastal states of the Gulf via the ROPME Council.
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Agreement propels science diplomacy: amid geopolitical tension, science aligns common
