

Spotted Seals: The Yellow Sea as a Preview of a Future, Warmer Arctic?

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The spotted seal, *Phoca largha*, is an ice-associated species whose range extends from the Alaska coastal waters of the Beaufort Sea to the Yellow Sea in China. This vast, trans-boundary expanse encompasses a broad range of climatic conditions so that the southwestern end--along the Yellow Sea coasts of China and Korea--is substantially warmer with less regular and extensive sea ice coverage than the majority of the range, in the Sea of Okhotsk and Bering Seas. The conditions for spotted seals in China may thus be an analog of future conditions expected in more northerly parts of the range under a disrupted and progressively warming climate. Although the species' habits in the southern parts of its range are poorly documented in western scientific literature, there are indications that spotted seals may be persisting by breeding on shore in the Yellow Sea and Sea of Japan. This is in stark contrast to the natural breeding habitat for the species, on the sea ice, where the white-coated pups are camouflaged and relatively safe from predators and disturbance. Spotted seals in China face other serious conservation risks from pollution, coastal development, mortality in fisheries, and poaching. A scientific collaboration and exchange between China and the U.S. would enhance the quality of status assessments and conservation efforts for this species throughout its range.