



R/V ATLANTIS

The research vessel *Atlantis* is a Navy-owned Auxiliary General Oceanographic Research (AGOR-25) vessel, operated by Woods Hole Oceanographic Institution (WHOI) since 1997 that is specifically outfitted to launch and service the nation's deepest diving human-occupied submersible, *Alvin*. *Atlantis* also supports general purpose oceanography and is routinely called upon to host other underwater vehicles and technologies that expand human presence in and understanding of the ocean. This unique mix of capabilities, and a highly trained crew, makes *Atlantis* extremely productive, with a utilization rate that routinely exceeds 275 days per year, much of which is funded by NSF. The ship recently completed its mid-life refit, extending its operating life through 2040.

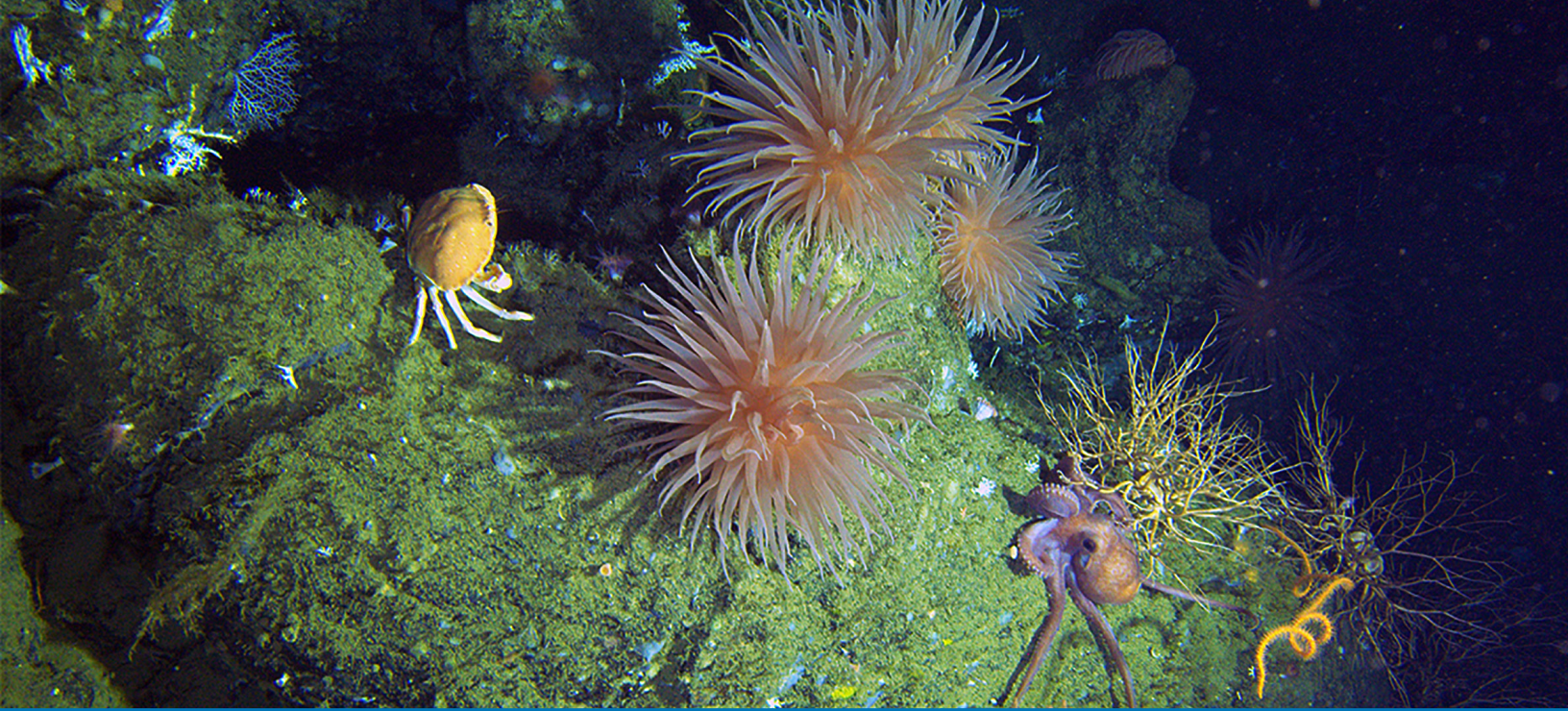
Provides sole support for the human-occupied submersible *Alvin* (DSV-2)

Atlantis hosts a specially designed launch and recovery system certified by NAVSEA and a highly trained crew, making it the only ship in the Academic Research Fleet capable of servicing and operating *Alvin*. The ship has supported *Alvin* on more than 2,000 dives in the Pacific, Atlantic, and Mediterranean over nearly half of the sub's 60-plus years of operation, including recent dives to nearly 6500 meters.



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Characterizing unexplored regions of the U.S. Exclusive Economic Zone

Recent expeditions by *Atlantis* have revealed unique seafloor features off the U.S. East and West Coast, including extensive deep-water coral habitats off the Mid-Atlantic and methane seeps near the Aleutian Islands. These discoveries provide critical insights into previously unknown submerged resources, expanding understanding of the half of U.S. territory that is underwater.

Provided response to the Deepwater Horizon oil spill

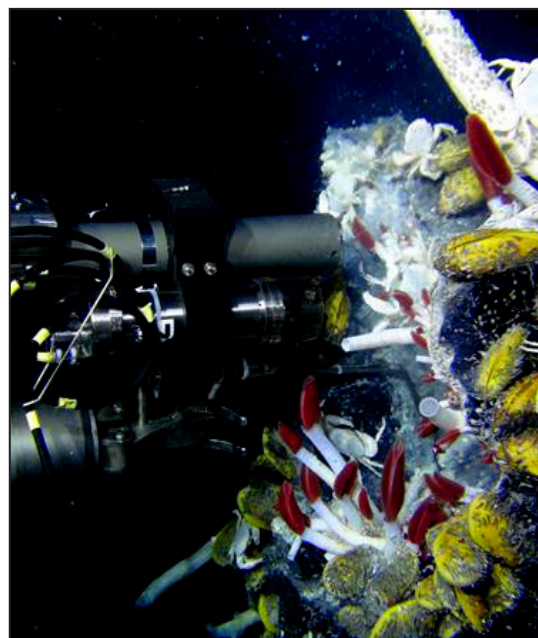
In 2011, *Atlantis* and *Alvin* were among the dozens of assets funded by NSF and deployed from Woods Hole to the Gulf region to assist in assessing the environmental and health impacts of the Deepwater Horizon oil spill. Testing of AUV *Sentry* from *Atlantis* two years earlier enabled the vehicle to map the hydrocarbon plume flowing from the damaged wellhead, helping establish an estimate for the extent and volume of oil spilled.

Advancing the search for life beyond Earth

Repeated visits to known and recently discovered hydrothermal systems along the East Pacific Rise, at Axial Seamount and elsewhere are helping define new baselines for the limits of life in the deep ocean and sub-seafloor. These discoveries help biologists better understand the origin of life on Earth while offering insights into the potential for life to exist in the perpetually dark, hydrothermally active oceans beneath the ice of Europa, Enceladus, and other ocean worlds.

Supports special missions

Atlantis has provided specialized support for critical missions, including deep-sea search and recovery. These have often involved National Deep Submergence Facility assets, such as the AUV *Sentry*-supported search for the El Faro vessel data recorder, search and recovery efforts for sailors aboard the Argentine submarine Santa Fe, and a recent survey of the 1917 wreck of the submarine USS F-1 with sonar and imagery from *Atlantis*, *Sentry*, and *Alvin*.



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