



**FOR IMMEDIATE RELEASE**

## **GREAT HAMMERHEAD SHARK FIRST TIME EVER DISPLAYED IN THE UNITED STATES**

*Shark Reef achieves several firsts in acquiring new species:*

- First U.S. aquarium to display a great hammerhead*
- First-ever closed-system aquarium to display a great hammerhead*
- Longest-ever transport by air of great hammerhead shark*

**Las Vegas, December 3, 2003** – Shark Reef at Mandalay Bay, an AZA accredited facility, has accomplished what no other U.S. aquarium has ever done - successfully transported and displayed in captivity a great hammerhead shark (*Sphyrna mokarran*).

The six-foot female specimen was placed in the general population of a 1.3-million gallon saltwater tank on November 3<sup>rd</sup>, 2003. Since that date, the new shark has been on public display, exhibiting normal behavior and acclimating well to its new environment. Other animals in Shark Reef's largest tank include stingrays, sea turtles, green sawfish, barracuda and 5 different species of shark – sandtiger sharks, sandbar sharks, nurse sharks, white tip reef sharks, and a lemon shark.

“Shark Reef is very proud of this achievement,” said Brian Robison, Director of Shark Reef at Mandalay Bay. “As the very first inland facility to keep a great hammerhead shark, this places our staff and facility at the cutting edge of some very important scientific work. The great hammerhead joins 15 other shark species on display at Shark Reef and becomes yet another ambassador for the world’s oceans to be viewed and better understood by the more than one million people from around the world who visit our aquarium each year.”

Only one other aquarium in the world has successfully accomplished the same feat. Atlantis, Paradise Island, Bahamas, an open-ocean aquarium has displayed great hammerhead sharks. However, Shark Reef is the first facility in the world to display a great hammerhead in a closed-system aquarium environment. A closed-system aquarium is a facility that is not connected to a natural ocean water source. Located in the middle of the Mojave Desert, Shark Reef must manufacture its seawater through a complex process of filtration and careful preparation of synthetic seawater which ensures the proper delicate chemical balance to assure health and longevity of the animal collection. Because of their large size and extreme difficulty in transport, a great hammerhead has never before been successfully displayed in a closed-system aquarium environment.

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## **Shark Reef Great Hammerhead, 2-2-2**

The great hammerhead is an extremely large shark. It is distinguished by its characteristic hammer-shaped head (or cephalofoil), making it one of the most unusual predators in the ocean. The great hammerhead is the largest of the 9 species of hammerheads. Adults average more than 500 pounds and are officially reported to reach 18 feet in length. The specimen living in Shark Reef is a juvenile, currently weighing less than 60 pounds and measuring approximately 6 feet in length.

The great hammerhead's laterally expanded head is slightly curved across the front, extending almost 90-degrees in either direction from the rest of the body. The function of the animal's odd-shaped head is the subject of some debate among marine biologists. Common theories believe the shape evolved for one of the following reasons: to enhance the animal's hydrodynamic maneuverability; improve its binocular vision; increase the accuracy of its sense of smell; or enhance the animal's reception to variances in water pressure or electrical impulses. All sharks have a unique ability to sense electrical impulses and use this skill to track and hunt prey. Scientists believe this unique ability is key in making sharks what some call the world's most efficient killers.

While scientists may argue about the reason behind the development of the great hammerhead's unusual physical characteristics, they do not argue over the fact that the great hammerhead is one of the ocean's most fierce predators. An adult hammerhead does not have a single predator in the water – except for another hammerhead. Great hammerheads are one of the few ocean creatures that exhibit cannibalistic behavior.

Shark Reef's great hammerhead shark was actually transported to Las Vegas in August 2001. The transport of this animal also set a new benchmark. At just more than 16 hours, the air transport of this shark from Marathon Fl, to Las Vegas, NV, is the longest time and distance a great hammerhead shark has ever been moved. The difficult task was accomplished by placing the shark in a custom-built fiberglass tank fitted with special life support equipment to inject oxygen into the water and allow the animal free movement as the great hammerhead is one of the few species of shark that must swim constantly. The tank was moved by truck and placed on a DC-7 aircraft which flew it to Las Vegas. Shark Reef's own scientists accompanied the shark on the flight, regularly checking the animal's condition and water chemistry.

Once safely in Las Vegas, concern over the shark's size prevented it from being introduced to Shark Reef's general population with other, larger sharks. For 27 months, the great hammerhead lived in the state-of-the-art Shark Reef Animal Husbandry Center. Like all animals brought in from the wild or from other aquariums, the great hammerhead was placed in an isolation quarantine for a set period of time to protect it and other animals from any communicable diseases or infection. During the quarantine, marine biologists and veterinary staff also observe the animal to learn about its behavior and ensure that no injury occurred during transport.

Once secure that the animal was healthy, attention was focused on building her size and strength. As she grew larger, other fish and sharks were introduced into her environment to acclimate her better to what her new surroundings would be like once she was moved to her final destination.

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### **Shark Reef Great Hammerhead, 3-3-3**

Over the course of two years, the Shark Reef's great hammerhead grew in size, weight, and strength, to a point where Shark Reef Curators became confident it would thrive in the general population and would not fall prey to one of the other large sharks. At 5:00 AM on November 3<sup>rd</sup>, the Shark Reef Animal Transport Team gathered in the Mandalay Bay Animal Husbandry Center to take the great hammerhead to her new home.

“This accomplishment is the result of a tremendous effort by every member of the Shark Reef team,” said Shark Reef General Curator Jack Jewell. “Working with all the creatures at Shark Reef is tremendously rewarding in itself. To be able to participate in ground-breaking work and be the first to accomplish any feat in the scientific world is also a great honor. The work our team has accomplished here will be the model for others who come after us. But what is most important is that we've brought this new animal to a place where it can be seen and appreciated by those who would never experience it, view it, marvel at its unusual nature and better understand the sensitive life and balance of our world's oceans.”



AMERICAN ZOO AND AQUARIUM ASSOCIATION

*Shark Reef at Mandalay Bay is an accredited member of the American Zoo and Aquarium Association. First organized in 1924, the AZA is a non-profit organization dedicated to the advancement of zoos and aquariums in the areas of conservation, education, science and recreation. AZA accreditation is achieved through a detailed review and inspection process covering all aspects of an institution's operation, including the animal collection, veterinary care, physical facilities, safety, security, as well as a facility's involvement in education, conservation and research. Currently, 212 AZA accredited facilities operate in North America. Shark Reef is the only AZA accredited facility in the state of Nevada.*

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