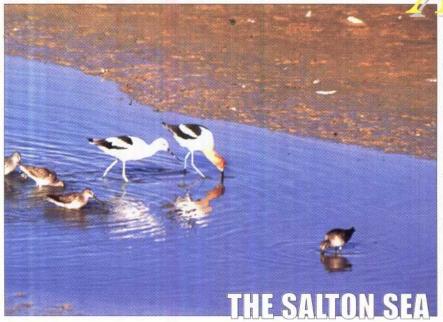
# FISH AND WILDLIFE SALTON SEA Restoration Project Restoration Project



visit to the shoreline along the Salton Sea reveals one of the most alluring aspects of California's largest lake: an abundance of birds.

And just below the water's surface is the reason: an abundance of fish.

That is why some scientists have called the Salton Sea "California's crown jewel of avian biodiversity" and perhaps the most productive fishery in the world

With its marine, freshwater, desert, wetland and agricultural habitats, the Sea has the second highest count of different species in the nation. Only the Texas Gulf Coast is higher. Over 400 species have been recorded in the area, including 100 breeding species. But even more important than the diversity of species is the importance of the Sea to major portions of total populations of some birds that use it. For example, in some years as many as 95 percent of the North American population of eared grabes may use the Sea 80 percent of

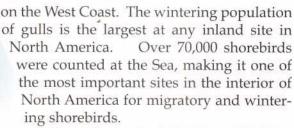
grebes may use the Sea, 80 percent of American white pelicans, 50 percent of ruddy ducks or 40 percent of Yuma clapper rails. All of those species are of concern, at either regional, continental or global scales. Other sensitive species found at the Sea include brown pelicans, the white-faced ibis, mountain plovers, black terns, burrowing owls, fulvous whistling ducks, least bitterns, wood storks, black rails and snowy plovers.

In addition, the Salton Sea has the largest breeding colony of double-crested cormorants

**Pacific** 

Flyway

California's Crown Jewel of Avian Biodiversity

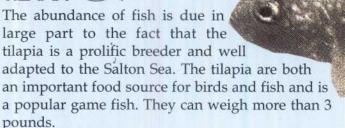


The pelicans, both brown and white, provide an interesting example of the importance of the Sea. The Sea is the only

place on their migratory paths where the two species overlap. But even more important is the presence of the brown pelican at all. The brown pelicans used to be found only on the coast. Their presence at the Sea shows both range expansion for this endangered bird and their first inland occurrence as a breeding bird. It is clear that the Salton Sea has become an important ecological area on its own merits.

All the fish were introduced with the exception of the endangered desert pupfish.

### TILAPIA



## GULF CROAKER

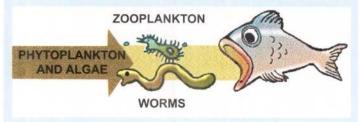
The gulf croaker is a small but important food fish for the orange mouth corvina which were introduced from the Gulf of California.

## **ORANGE MOUTH CORVINA**

Orange mouth corvina have become the chief game fish in the Salton Sea. Corvina can weigh up to 30 pounds and grow to 42 inches.

# SARGO

Sargo also has been an important game and forage fish, but its numbers are declining.



Fish thrive in the lake because there is plenty to eat. The aquatic ecosystem is extremely productive because of the large amounts of nutrients it receives. The nutrients stimulate growth of phytoplankton and algae, which in turn support zooplankton and worms. And all of that provides a continuing supply of "gourmet meals" for the fish.

But as area residents and visitors know, there is a downside to all of this abundance of nutrients. The Salton Sea has become crowded with fish especially tilapia.

Periodically, decomposition of large algal blooms diminishes the dissolved oxygen in the lake. This decomposition has been tied to the sizable fish die-offs that have been occurring each year.

> Since the mid-1920s, there have been a number of bird die-offs

> > recorded. In the 1990s, the frequency and severity of the bird die-offs increased. Most of the bird diseases

suspected of causing the die-offs have been identified as bacterial or viral pathogens. These pathogens are common throughout the Pacific Flyway. However, some of the causes remain unknown, but research continues as does the increasingly fruitful rescue and rehabilitation of sick birds.

Endangered

Desert Pupfish

At the same time, testing is underway on projects to reduce fish population. For example, tilapia is being evaluated as a possible source of pet food or fertilizer.

While the Salton Sea is known best for its fish and bird populations, it is also home to much more. There are 24 reptiles and over 20 mammals, with most

species being found in the desert and wetland areas. The desert tortoise and fringed toed lizard are listed as sensitive species and the subject of intensive study and management. Mammals in the Salton Sea area include a wide variety of bat and mice species along with the typical desert dwellers such as coyotes, deer, bobcat and bighorn sheep.

And, of course, there are snakes and lizards normally found in arid desert regions.

