



**U.S. Fish & Wildlife Service - Pacific Region**

*Salton Sea National Wildlife Refuge*

California Nevada Idaho Oregon Washington Hawaii Pacific Islands

**WILDLIFE MORTALITY ESTIMATES**

1987-1996

**SALTON SEA**

YEAR	PRIMARY SPECIES	CAUSE OF DEATH	ESTIMATED
1987	ruddy duck, eared grebe	avian cholera	500
1988	dabbling ducks, shorebirds	avian botulism *595	*324
1989	ducks, geese	avian cholera	750
1989	cattle egret	salmonellosis	*4,515
1990	ruddy duck, cattle egret	avian cholera	180
1990	great-tailed grackle, cattle egret	salmonellosis suspect	300
1991	ring-billed gull, dabbling ducks, geese, shorebirds	avian cholera	2,000
1992	eared grebe, ruddy duck	undetermined	150,000
1992	dabbling ducks, shorebirds	avian cholera	5,000
1993	geese, ducks, coots, gulls	avian cholera	500
1994	eared grebe, ruddy duck	undetermined	*1,659
1994	ducks, shore- birds, wading birds	avian cholera	*452
1994	pelicans (brown & white), dabbling shrike shorebirds	avian botulism	300

1995	eared grebe, ruddy duck	undetermined	2,000
1996	ruddy duck, gulls, dabbling ducks, shorebirds	avian cholera	1,000
1996	pelicans (white & brown), great egret, ring-billed gull, other fish- eating birds	avian botulism	*14,109

\*This is the actual number of dead birds collected by Federal and state wildlife personnel. The estimated total losses exceed this number.

Massive fish kills occur frequently at the Salton Sea, resulting in millions of fish killed in a year. The predominant fish species in the Salton Sea is tilapia; the sport fishery at Salton Sea is nonexistent today.

[Why is the Salton Sea Important?](#)

[Summary of 1996 Avian Botulism Event](#)

[1997 Fish and Wildlife Mortality Events](#)

[Summary of 1996-1997 Fish Pathology Findings](#)