Table 4

Representative Fishes of San Francisco Bay and the Delta

Species	Species origin	Species type	Life history			Center of population	Importance of species	Preferred habitat	Use of Bay or Delta	Major food source		Recent population trend
			Spawning time	Spawning location	Nursery area					Adult	Juvenile	
Pacific herring	N	M	Fall-Winter	Bay	SSFB-SPB	Ocean	Commercial, Forage	Pelagic	Bay-Spawning, Nursery	P	P	Variable
Longfin smelt	N	E	Winter, Spring	Rivers	Delta, Bay	SPB	Forage	Pelagic	Bay-Nursery, Residence	P	P	Variable, Recently Down
Pacific staghorn sculpin	N	E	Fall, Winter	Bay, Ocean	Bay	CSFB-SPB	Forage	Littoral/ Demersal	Bay-Nursery, Residence	F, B	B	Variable
Starry flounder	N	E	Winter	Ocean	SB-Delta	Ocean-Bay	Commercial, Recreation	Demersal	Bay-Nursery, Residence	B	B	Down
Speckled sanddab	N	M	All Year	Ocean	Ocean-CSFB SPB SSFB	Ocean	Forage	Demersal	Bay-Nursery, Residence	B	B	Variable
English sole	N	M	Winter	Ocean	Ocean-Bay	Ocean	Commercial	Demersal	Bay-Nursery	B	B	Variable
White croaker	N	M	Summer-Fall	Ocean	Ocean-CSFB	Ocean	Forage	Demersal	Bay-Nursery, Residence	B	B	Up
Yellowfin goby	I	E	Winter	Bay	SB-Delta	SPB-SB	Forage, Commercial	Demersal	Bay-Residence	B	B	Down
Plainfin midshipman	N	M	Spring-Summer	Bay	SSFB-SPB	SSFB-SPB	Forage	Demersal	Bay-Nursery, Residence	B	B	Up
Bay goby	N	M	Summer-Fall	Bay	SSFB-SPB	CSFB	Forage	Demersal	Bay-Nursery, Residence	B	B	Variable
Topsmelt	N	M	Summer	Bay	SSFB-CSFB	SSFB	Forage	Littoral/ Pelagic	Bay-Residence	B	B	Variable
Jacksmelt	N	M	Spring-Summer	Bay, Ocean	SSFB-CSFB	Ocean	Recreation, Forage	Pelagic	Bay-Spawning, Nursery	F	P	Variable
Northern anchovy	N	M	Spring-Summer	Bay, Ocean	Bay, Ocean	Ocean	Commercial, Forage	Pelagic	Bay-Spawning, Nursery	P	P	Variable

N = native
I = Introduced
E = estuarine
M = marine
A = anadromous
FW = fresh water

SSFB = South San Francisco Bay
CSFB = Central San Francisco Bay
SPB = San Pablo Bay
SB = Suisun Bay

P = plankton
B = benthos
F = fish
Pelagic = open water
Littoral = shoreline
Demersal = bottom

Table 4 *(continued)*

Species	Species origin	Species type	Life history			Importance of species	Preferred habitat	Use of Bay or Delta	Major food source		Recent population trend
			Spawning time	Spawning location	Nursery area				Adult	Juvenile	
Pacific lamprey	N	A	Spring	Rivers	Rivers, Upper Delta	Parasite, Forage	Pelagic	Upper Delta-Nursery, Migration	F	B veg.	Down
White sturgeon	N	A	Spring	Rivers	Estuary	Recreation	Demersal	Delta-Residence	P	P	Down
American shad	I	A	Spring	Rivers, Upper Delta	Rivers, Delta	Recreation	Pelagic	Bay & Delta-Nursery, Migration	P	P	Down
Threadfin shad	I	FW	Spring	Delta	Delta	Forage, Bait, Commercial	Pelagic	Delta-Residence	P	P	Down
Steelhead trout	N	A	Spring	Rivers	Rivers	Recreation	Pelagic	Bay & Delta-Migration	P	P, B insects	Down
Chinook salmon	N	A	All mos., Greatest nos. in Fall	Rivers	Rivers, Upper Delta	Recreation, Commercial	Pelagic	Delta-Nursery, Migration Bay-Migration	F, P	P, insects	Down
Delta smelt	N	E	Spring	Delta	Delta, Suisun Bay	Forage	Pelagic	Delta-Spawning, Nursery, Residence	P	P	Down
Splittail	N	E	Spring	Delta	Delta, Suisun Bay	Recreation, Forage	Pelagic	Delta-Spawning, Nursery, Residence	P	P	Down
Carp	I	FW	Spring	Delta	Delta	Recreation	Pelagic	Delta-Spawning, Nursery, Residence	P	P	Down?
Sacramento sucker	N	FW	Spring	Rivers	Rivers	Educational	Demersal	Delta-Nursery	B	B	?
White catfish	I	FW	Spring, Summer	Delta	Delta	Recreation	Demersal	Delta-Spawning, Residence	B	B	Down
Striped bass	I	A, E	Spring	Rivers, Delta	Delta, San Pablo Bay	Recreation	Pelagic/ Demersal	Delta-Spawning, Nursery, Bay-Nursery	P, B, F	P	Down
Bluegill	I	FW	Spring	Delta	Delta	Recreation	Littoral	Delta-Spawning, Nursery	P, B	P, B	?
Black crappie	I	FW	Spring	Delta	Delta	Recreation	Pelagic	Delta-Spawning, Nursery, Residence	P, F	P	?
Largemouth bass	I	FW	Spring	Delta	Delta	Recreation	Littoral	Delta-Spawning, Nursery, Residence	F, B	P, B	?
Tule perch	N	E	Spring, live bearer	Delta, marsh sloughs	Delta, marsh sloughs	Educational	Littoral	Delta-Nursery	B, P	B, P	Down?