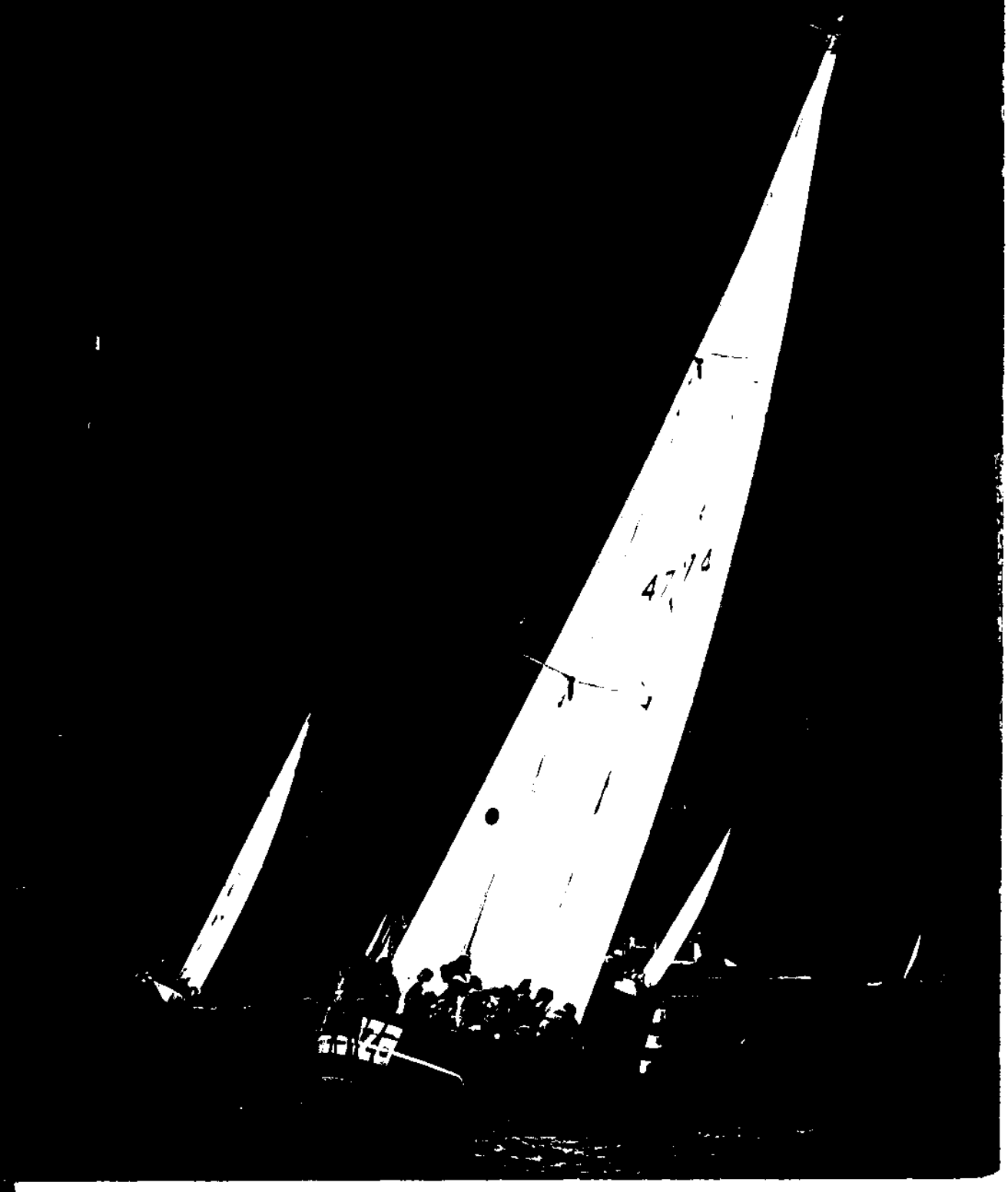
San Francisco Bay— Recreational Climate



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Authors: Richard DeAngelis, Environmental Data and Information Service, Christopher M. Dewees and Andrew T. Manus, UC Cooperative Extension Marine Advisory Program (Sea Grant).

Photographs: Jack Kelly Clark, Visual Aids, University of California Cooperative Extension.

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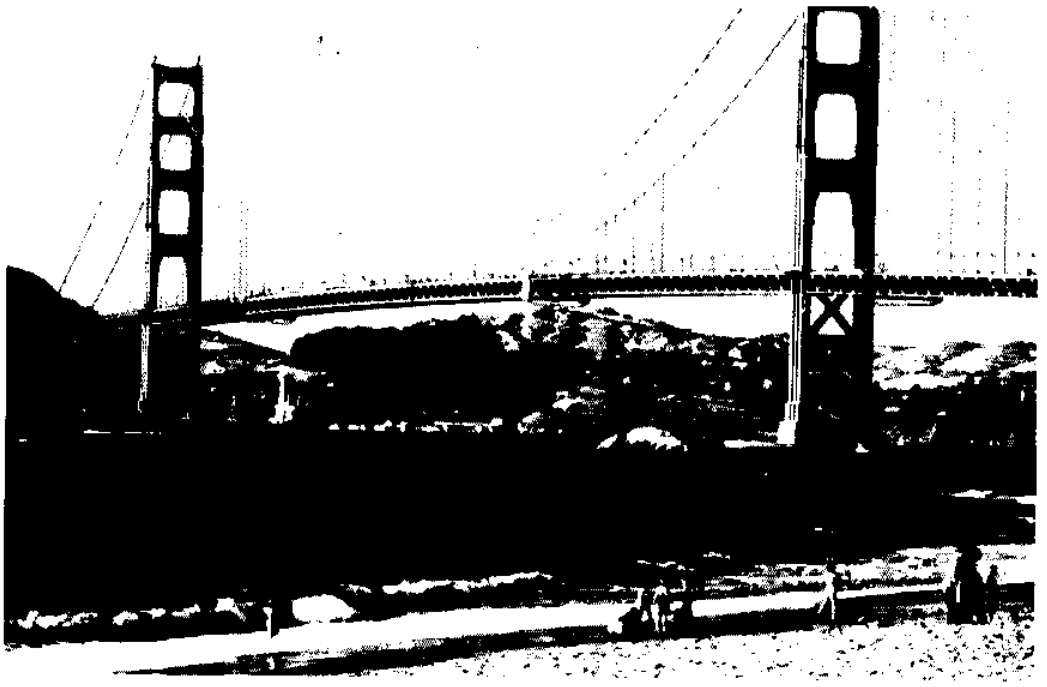
INTRODUCTION

"San Francisco, your golden sun will shine for me."* This is more than a line from a song. Good weather along with pleasant scenery and plenty of things to do have endeared the San Francisco Bay Area to resident and visitor alike. The mild year-round climate of the San Francisco Bay Area encourages a variety of outdoor recreational activities. Two of the most visible and popular of these activities are sports fishing and sailing. Both are directly tied to Bay Area weather. This brochure describes the general climate of the Bay Area and offers specific information related to fishing and sailing.



VACATION WEATHER

Year-round outdoor activities in the San Francisco Bay Area are encouraged by mild winters, naturally air-conditioned summers, warm autumns and sunny, breezy springs. Chilly weather and hot spells are quickly tempered by the Bay and the Pacific Ocean. The weather will vary in different localities or even in different neighborhoods.

On a typical summer afternoon Marin County commuters cross a fog-shrouded Golden Gate Bridge, while shirt-sleeved San Francisco residents bask in warm Mission Area sunshine.

Fishermen surfcasting for stripers along Ocean Beach may be bundled against cool, foggy ocean winds while sailors in shorts skim across San Rafael Bay on balmy breezes under sunny skies.

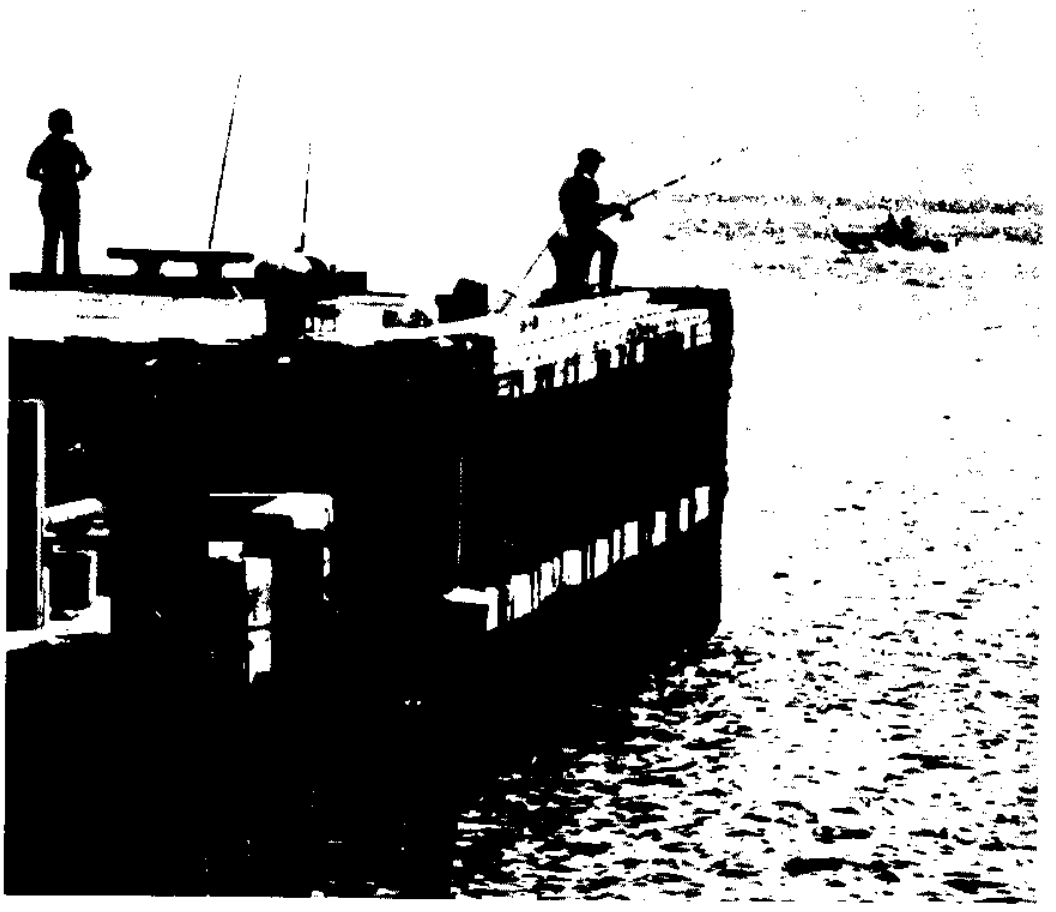
GOOD OUTDOOR DAYS*

	San Francisco	Oakland
April	4	6
May	5	9
June	8	16
July	13	22
August	15	24
September	18	23
October	13	17
November	4	4
December	1	*
January	*	*
February	1	1
March	2	2

*A good outdoor day is one where three daytime observations show that at least *once* the visibility is more than 1 mile and precipitation does not occur; and at least *twice* windspeeds are less than 17 knots and air temperatures are 65° to 90° F and relative humidities are less than 46 percent if temperatures are 85° to 90° F.

Good Bay Area weather is guaranteed from June through October (see table of ideal outdoor weather days). Summer rain is infrequent. The typical forecast calls for morning fog followed by sunshine. Along the San Francisco peninsula and on the East Bay coast, afternoon temperatures reach the sixties (°F) and seventies under partly sunny to sunny skies and moderate breezes. In more protected locations around San Francisco and from Sausalito to San Rafael, daytime highs frequently climb into the low eighties. At Ocean Beach and along the rest of the Pacific coast cooler, windier, foggier weather is common. This jacket and sweater weather also occurs along San Fancisco's north waterfront, particularly during the afternoon when low stratus and fog roll in through the Golden Gate and other mountain gaps. This blanket helps keep nighttime lows in the upper forties and low fifties. These clouds usually burn off the following day, first from sheltered locations, then the rest of the shore and finally from the middle of the Bay. This cycle is occasionally interrupted by hot, dry weather from the interior which may last for a few days.

September and October are the warmest months of the year, except at the more sheltered locations. The strong ocean breeze system breaks down and temperatures are often in the seventies. Up until October rainfall is scanty. Most often it is in the form of drizzle from low summer stratus. Occasionally a shower or thunderstorm will affect the area. While low clouds and fog are not a problem in the fall, sometimes industrial smog is spread around the Bay on afternoon breezes.



About 85 percent of the year's rain falls from November through March. During the fall and winter, low pressure systems bring rain and generate the strong winds that occasionally rake the Bay Area. There are still many mild, sunny winter days. Indian summer lasts well into November. Even in midwinter, daytime highs range from the mid-forties to mid-sixties.

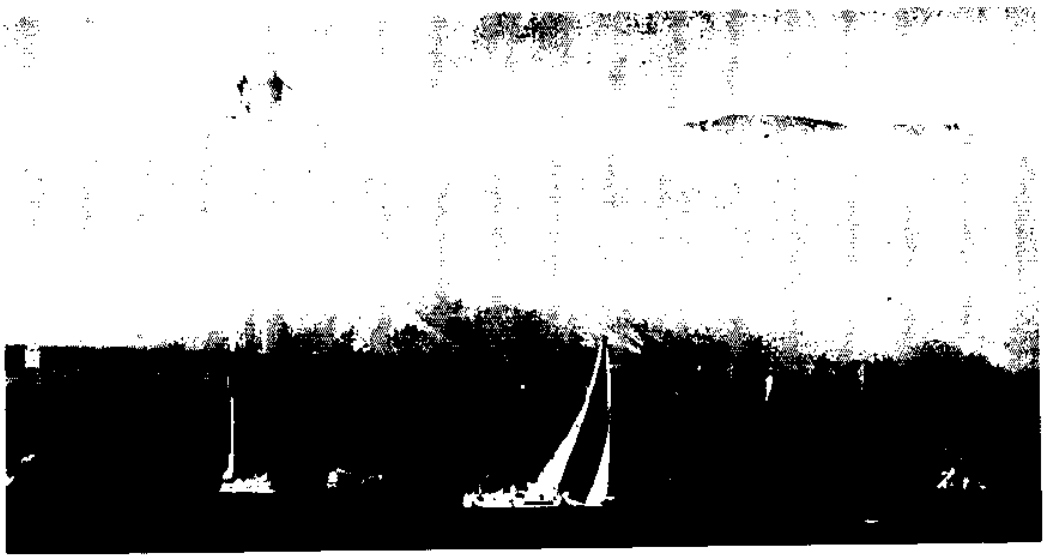
Wintertime temperatures are often a few degrees warmer in the Golden Gate Park and along the ocean than they are inside the Bay. There is usually a 10-degree drop at night. Freezing conditions are infrequent. Temperatures usually fall the most on clear, calm fall and winter nights in low lying areas. This often results in a shallow radiation fog, which usually burns off the following morning. Snow is unlikely except on some of the mountains. Spring weather is variable and windy. Pleasant spring days with foggy evenings alternate with occasional storms that bring a last reminder of winter. (See Vacation Weather Guide, pages 4-5.)

VACATION WEATHER GUIDE

	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
ALEMEDA												
avg. max. temp. (°F)	55	59	62	65	68	71	71	72	74	71	64	56
avg. min. temp.	44	47	48	50	52	55	55	56	57	55	51	46
# days with rain	10	8	8	5	2	1	*	1	1	4	8	10
avg. rainfall	3.6	2.2	2.2	1.2	0.4	0.2	*	*	0.2	1.1	2.3	3.3
# days with visibility ½ mile	5	3	.5	.5	.5	0	0	0	.5	1	2	4
SAN MATEO												
avg. max. temp.	58	61	64	67	70	75	76	76	77	72	65	60
avg. min. temp.	41	43	45	47	50	52	54	54	53	51	46	43
avg. rainfall	4.0	3.6	2.9	1.6	0.6	0.1	*	*	0.2	1.2	2.2	3.7
HALF MOON BAY												
avg. max. temp.	57	58	60	61	62	64	64	64	67	65	63	59
avg. min. temp.	42	43	44	45	48	50	52	55	51	48	45	45
avg. rainfall	4.3	4.4	3.4	1.9	0.7	0.2	*	*	0.1	1.5	2.7	4.3
SOUTHEAST FARALLON												
avg. max. temp.	54	54	54	54	54	55	56	56	58	58	57	55
avg. min. temp.	48	49	49	50	50	51	52	52	53	53	52	50
avg. rainfall	3.9	3.0	3.3	0.8	0.6	0.3	*	*	0.6	0.6	1.6	2.5

SAN FRANCISCO—International Airport												
avg. max. temp.	55	59	61	64	67	70	71	72	74	70	63	57
avg. min. temp.	41	44	45	47	50	53	54	54	55	52	47	43
# days with rain	11	10	9	6	3	1	*	1	1	4	7	10
avg. rainfall	4.4	3.0	2.5	1.6	0.4	0.1	*	*	0.2	1.0	2.3	4.0
# days with visibility ½ mile	4	3	1	.5	0	0	.5	.5	.5	2	2	4
SAN FRANCISCO—Golden Gate Park												
avg. max. temp.	55	60	59	59	62	62	62	61	67	67	62	57
avg. min. temp.	43	43	43	46	47	49	51	51	52	50	47	47
avg. rainfall	6.0	1.7	3.1	1.7	0.3	0.4	*	0.2	0.1	0.4	2.9	7.7
SAN RAFAEL—Hamilton AFB												
avg. max. temp.	54	59	63	67	72	78	80	79	80	73	63	56
avg. min. temp.	39	42	43	45	48	52	52	52	52	48	43	41
# days with rain	11	9	9	6	3	1	*	*	1	4	6	9
avg. rainfall	5.7	4.6	3.2	1.8	0.5	0.2	*	*	0.2	1.7	2.9	5.2
BERKELEY												
avg. max. temp.	56	59	61	63	65	69	69	69	71	70	64	57
avg. min. temp.	44	45	46	48	51	53	54	54	55	53	48	45
avg. rainfall	4.6	3.8	3.2	1.7	0.8	0.2	*	*	0.1	1.2	2.1	4.3

* ½ day or .05 inches



SAILING AND BOATING WEATHER

Weather conditions on the Bay are influenced by exposure to the ocean. Exposed waters are usually windier, rougher, cooler, and foggier in summer than sheltered waters; in winter they are usually warmer and less foggy.

WINDS

Bay winds are strongest through the Golden Gate and other mountain gaps. Late spring is the windiest time of the year. Spring also provides an abundance of winds in the 7- to 16-knot sailing range; sometimes they blow stronger in the gaps. They are mainly out of the southwest through northwest, particularly in the afternoon. By June a steady ocean breeze prevails, strengthening during the day and weakening at night. In sheltered coves and bays this is replaced at times by a local land and sea breeze. Afternoon winds are good for sailing except through the Golden Gate and near other gaps, where they frequently climb to 25 knots and occasionally reach gale force of 34 knots or more; morning winds are better in these waters. Through August, morning winds are often out of the southwest through northwest; southeasterlies sometimes blow south of Treasure Island. Afternoon winds funnel eastward through the Gate often splitting inside the Bay, with a west through northwest flow to the lower Bay and a southwest to west flow to the upper portion. These afternoon conditions persist through the early fall, but in September morning calms or light and variable conditions predominate. This lasts through the winter, particularly at sheltered locations. By November light and variable winds often persist into the afternoon, unless a storm system generates stronger winds. When storms are not affecting the Bay weather, fall and winter afternoons offer good sailing conditions in exposed waters. Directions are variable and are as likely to be out of the northwest through northeast as southeast through south. Strong storm-generated winds can reach 40 to 60 knots in gusts, but sustained winds of gale force are uncommon inside the Bay. These strong winds are most likely from November through April.

SAILING WINDS CHART

		Prevailing Directions		Windspeeds 7-16 kt (%)	Windspeeds Over 16 kt (%)
SAN FRANCISCO					
January	am	SE	C	27	5
	pm	W	NE	49	7
April	am	W	NW	43	5
	pm	W	NW	48	50
July	am	W	NW	52	3
	pm	W	NW	32	68
October	am	W	NW	28	2
	pm	W	NW	60	31
ALAMEDA					
January	am	SE	C	29	3
	pm	W	NW	44	6
April	am	W	SE	35	3
	pm	W	SW	73	7
July	am	W	SW	46	1
	pm	W	NW	80	14
October	am	C	N	27	3
	pm	W	NW	68	6
SAN RAFAEL					
January	am	C	E	26	1
	pm	C	E	39	2
April	am	C	NW	22	2
	pm	W	NW	71	4
July	am	C	N	8	0
	pm	NW	SE	84	1
October	am	C	NW	11	1
	pm	NW	SE	55	2
GULF OF FARALLONES					
January	am	NE	NW	51*	34*
	pm	NW	S		
April	am	W	NW	42	44
	pm	W	NW		
July	am	W	NW	60	12
	pm	W	NW		
October	am	W	NW	55	11
	pm	W	NW		

C—calm winds

* —frequency not separated into am and pm

Winds are less complex outside the Bay. Northwest winds are common all year but predominate, along with westerlies from March through October. During the winter months northeast through south winds blow frequently, too. Along the coast, calms and light winds are common during the morning from autumn through spring. While most winter and spring winds range from 7 to 16 knots, they can fall below 3 knots and climb above 22 knots. Summer winds are more stable. They are often in the 7 to 16-knot range; safest conditions exist from July through October when winds of 22 knots or more are infrequent. A wind eddy sometimes forms in the vicinity of the Golden Gate. Northwesterlies from Point Reyes whip down to the entrance of the Bay where they turn eastward then northward back toward Point Reyes. Windspeeds in the vicinity of major headlands can be two to three times as great as wind flow at nearby points.

GOOD SAILING DAYS*

	San Francisco	Oakland
April	2	5
May	4	8
June	8	15
July	13	21
August	15	22
September	14	21
October	7	12
November	1	2
December	*	*
January	*	*
February	*	*
March	1	2

*A good sailing day is one where four daytime observations show that at least *once* visibilities are more than 2 miles; and at least *twice* windspeeds are 7 to 16 knots, and temperatures are 65° F or more and precipitation does not occur.

WAVES

The brisk winds that blow across the Bay can raise choppy seas, particularly through the Golden Gate on spring and summer afternoons. When westerly winds climb to 15 to 20 knots, 3 to 4 foot seas are often encountered west of Alcatraz Island. Winter storms can also generate these conditions. Inside the Bay where the fetch of the prevailing winds is diminished, rough waters are less frequent. The Bay itself is more vulnerable to the strong winds that infrequently blow from the north or the south.

Sea conditions in the Gulf of the Farallones are best in July and worst in April. While waves of 8 feet or more can be encountered in any month, they are least likely in midsummer. Strong westerly and northwesterly winds generate heavy seas, but sometimes these seas are produced by storm-generated southeasterlies and southerlies. While these winter storms often cause high seas, the interval between systems, in winter, creates frequent periods of waves less than 3 feet.

FOG

Fog ebbs and flows like a tide across the Bay. Low stratus and fog are almost a daily double feature in summer. However, except in the Golden Gate and in the Gulf of the Farallones, fog seldom reduces visibilities below 2 miles. In the Bay area this low stratus is known as "high fog". From June through October a semi-permanent fog bank hangs across the Gulf of the Farallones. During the late afternoon strong sea breezes carry it ashore, often clearing the Gulf waters. This fog surges through the Golden Gate and other gaps. It is then spread throughout the Bay on local winds. Once east of Alcatraz the fog base lifts to about 500 feet. It usually reaches the Berkeley shore by early evening. However at places like Kentfield, San Rafael and San Mateo high fog often creeps in only a few hours before sunrise. These places are also the first to clear. Last to improve is the middle of the Bay, from Berkeley to the Golden Gate. However, over most of the Bay clear skies are the rule between noon and about 5 p.m. There are times when the stratus is thick enough to persist all day and cause a drizzle. There are also times when the onshore flow breaks down and the Bay remains clear.

Smog sometimes reduces visibility to less than 2 miles in the fall. It generally forms over San Francisco and spreads across the Bay to the Berkeley Hills on the afternoon sea breeze. Dense fog is most likely in autumn and winter along the shores of the Bay. It develops on calm, clear nights, often over marshes where tules and other marsh plants grow. It has been nicknamed "tule fog", and usually burns off by the following noon. Occasionally land breezes from the Berkeley Hills will push this fog seaward toward San Francisco and Marin, and then out the Golden Gate. Visibility is best in the spring when fog is infrequent, although a haze sometimes hangs over the Bay encircling the hills in picturesque wreaths and domes.

TIDES AND TIDAL CURRENTS

Tides and tidal current must be considered when planning an outing on San Francisco Bay and adjacent ocean waters. Tide heights will dictate whether you can navigate the shallower areas of the bay. Tidal currents, which reach 6 knots (6.9 MPH) in some parts of the bay, will have a significant effect on your speed over the bottom and the roughness of the bay's waters.

The San Francisco area generally has four tidal periods per day, approximately six hours apart. These are called mixed tides because they vary appreciably in height. At times the difference between the highest and lowest tides will approach 8 feet.

Tide tables which predict the tides for the year are available from the National Ocean Survey at the address listed on page 23. Tide tables are often reprinted locally in newspapers and are also available at marinas, fishing tackle stores, and boat supply shops for free or a small charge. If you will be in shallow areas and you want to know the effect of the tide on the depth, add the height of the tide to the depth indicated on the chart. Remember to take into account the tidal differences listed in the table.

Tidal currents can be very strong in the bay and adjacent ocean waters. Generally, the strongest tidal currents (up to 6 knots) occur in the deep, main channels of the bay. You may want to plan your trip, if possible, to go in the same direction of the tidal current (especially in a sailboat). If you must travel against the tidal current, you will find that often the adverse current is weaker near shore.

Tidal currents also affect the roughness of the water. When the prevailing westerly winds are blowing, the bay is often much rougher during the ebbing (outgoing) tidal currents. This is because the wind is blowing against the current flow, producing large, steep waves. These steep waves can be dangerous for small craft on the open bay and ocean waters.

The National Ocean Survey also publishes tidal current charts and tidal current tables for San Francisco Bay (ordering information on page 23). These charts show the direction and average speed of the tidal currents for each hour of the tidal cycle. The tidal current tables predict the time and speed of the maximum tidal current for each tide cycle. Times of slack water are also listed. Occasionally the tidal current tables and/or the tidal current charts are included with the tide books available from local marine businesses.

Before boating on the bay or adjacent ocean waters check the tides for that day to ensure a safe, pleasant trip.

WATER TEMPERATURES

Water temperatures along the northern California coast are chilly throughout the year. In the summer the ocean waters are kept cold by upwelling. Prevailing northwesterly winds move the warmer surface waters offshore and these waters are replaced by deep, cold water that "upwells" to the surface. The cold water helps keep San Francisco's summer climate cool and aids in the development of the Bay Area's famous fog.

As shown in the table below, you can expect to encounter water temperatures of 50° to 60° F outside the Golden Gate. In the shallower, more protected parts of the bay, such as Alameda and Hunter's Point, warm summer sun will heat the waters up into the mid-60's.

Inside the bay there often is a 5-10° F difference in water temperature during different tidal cycles. This is especially true in the summer months, when the water in the bay's shallow, protected areas is heated by the sun. When the tide is ebbing (outgoing) these warm waters flow down through the main bay. Several hours later the cycle is reversed when the cold ocean waters flow back into the bay with the flood (incoming) tide.

AVERAGE WATER TEMPERATURES(°F)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
S.E. FARALLON ISLAND	53	53	53	52	53	53	54	55	55	55	55	54
FORT POINT	51	52	53	54	56	57	59	59	60	59	55	52
ALAMEDA	51	53	57	61	64	67	69	69	68	64	58	53
HUNTER'S POINT	51	51	53	56	59	61	63	63	64	62	57	53

BOATING

Boating on San Francisco Bay is both an enjoyable spectator and participant activity. Witness to the sport's popularity are the many marinas located on the Bay. Marinas are the focal point for much that is boating—launching boats, starting of regattas, and the gathering of people, etc. The following pages list most of the major marinas in the area and facilities provided. A chart designating the location of each marina is included as are sections on weather rules for safe boating, a listing of authorized nautical chart agents, and suggested further reference materials.

MAJOR MARINAS IN AREA AND SERVICES PROVIDED

Marina	No.	Launching Facilities Capacity	Depth at Entrance MLLW	Fuel Dock and Type	Sewage Pump Out	Public* Access
Clipper Yacht Harbor Foot of Harbor Drive, Sausalito	1	double wide ramp	8'-10'	gasoline #1 & #2 diesel	none	
Kappas Marina Gate 6 Road, Sausalito	1	none	4.5'	none	yes	along Gate 6 Road
Cass's Rental Marina Bridgeway & Napa Streets, Sausalito	2	none	7'	none	none	
Pelican Harbor Foot of Johnson St., Sausalito	2	none	12'	none	none	shoreline & floats
Sausalito Yacht Harbor Bay & Humboldt Sts., Sausalito	3	none	---	none	yes	shoreline & boardwalk
San Francsico Yacht Harbor Foot of Scott Street, San Francisco	4	hoist (2 ton)	40'	gasoline and diesel	yes	shoreline & breakwater
Oyster Point Marina Foot of Oyster Pt. Blvd, South San Francisco	5	2 lane ramp 30' max	8'	gasoline #2 diesel	none	entire shoreline

Coyote Pt. Marina Coyote Pt. Dr., San Mateo	6	3 lane ramp 30' max	8'	gasoline and diesel	yes	entire shoreline
Docktown Marina Foot of Maple St., Redwood City	7	1 ramp 50' max (5 ton)	5'	none	none	
Pete's Harbor Foot of Uccelli Blvd., Redwood City	7	2 travel 1 hoist (2 ton)	5.5'	gasoline #2 diesel	none	
Redwood City Muni- pal Marina Harbor Blvd, Redwood City	7	1 hoist 1 ramp (1 ton)	8'	gasoline	none	shoreline
San Leandro Marina End of Marina Ave., San Leandro	8	hoist & & ramp (2 ton)	4'	gasoline #2 diesel	yes	entire
Aeolian Yacht Club Bay Farm Island Bridge, Alameda	9	repair railway 40' max	0'	none	none	
Alameda Yacht Harbor Buena Vista & Benton, Alameda	10	marine railway 60' max	15'	gasoline	yes	shoreline

*The San Francisco Bay Conservation and Development Commission (BCDC), the state planning and regulatory agency for the Bay, has provided the information regarding public access to the various shoreline facilities. Further public access inquiries should be directed to the BCDC office: 30 Van Ness Avenue, Room 2011, San Francisco, California 94102.

MAJOR MARINAS IN AREA AND SERVICES PROVIDED

Marina	No.	Launching Facilities Capacity	Depth at Entrance MLLW	Fuel Dock and Type	Sewage Pump Out	Public* Access
Barnhill Boat Yard End of Mariner Square Drive, Alameda	11	---	15′	none	yes	
Ballena Bay Foot of Fourth St., Alameda	12	2 hoists (5 ton & 1 ton)	7′	gasoline #2 diesel	yes	shoreline
Alameda Marina Clement Ave. on Estuary, Alameda	13	2 hoists (1 ton & 2 ton)	8′	gasoline #2 diesel	none	
Embarcadero Cove Embarcadero, Oakland	13	----	20′	none	none	shoreline
Oakland Marina Brooklyn Basin/South Channel, Oakland	13	1 ramp small boats	20′	gasoline #1 & #2 diesel	none	
Portobello Marina Embarcadero West & Oak St., Oakland	13	---	---	none	none	shoreline
Seabreeze Yacht Harbor Foot of 6th Ave., Oakland	13	hoist & railway (12 ton)	16′	none	none	

Fifth Ave. Marina 5th Ave., Oakland	14	hoist (2 ton)	20'	none	none	
Jack London Marina Jack London Square, Oakland	14	marine hoist	7'	gasoline diesel	yes	shoreline
Mariner Square Marina End Mariner Square Drive, Alameda	14	hoist (1 ton)	6'	none	none	shoreline & floats
Pacific Marina Foot of Sherman St., Alameda	14	none	16'	none	none	
Emeryville Marina Foot of Powell St., Emeryville	15	none	---	gasoline #1 & #2 diesel	yes	entire shoreline
Berkeley Marina University Ave., Berkeley	16	ramp 2 hoists (2 tons)	6'	gasoline #1 & #2 diesel	yes	entire shoreline
Brickyard Cove Harbor, Inc. Garrad Blvd. & Ferry Pt. Richmond,	17	2 hoists (2 tons)	9'	none	none	

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MAJOR MARINAS IN AREA AND SERVICES PROVIDED

Marina	No.	Launching Facilities Capacity	Depth at Entrance MLLW	Fuel Dock and Type	Sewage Pump Out	Public* Access
Channel Marina West Cutting Blvd., Richmond	17	none	30'	gasoline	none	
Pt. San Pablo Yacht Club End of Santa Fe Channel, Richmond	17	none	15'	none	none	
Pt. San Pablo Yacht Harbor Point San Pablo, Richmond	17	none	4'	gasoline diesel	none	
Tom Decker's Richmond Yacht Harbor Cutting Blvd., Richmond	17	none	9'	none	none	
Red Rock Marina North of Toll Plaza, Richmond, San Rafael Bridge	18	ramp (4,000 lbs.)	4'	gasoline and diesel	none	fee pier

Loch Lomond Marina, Inc. End of Loch Lomond Drive, San Rafael	19	dual ramp	3.5′	gasoline diesel	none
Lowrie Yacht Harbor Pt. San Pedro Road, San Rafael	19	none	2′	none	none
Marin Yacht Club Foot of Summit Ave., San Rafael	19	hoist (2 tons)	2.5′	none	none
San Rafael Yacht Harbor Foot of Bay Street, San Rafael	20	none	6′	none	none
Corinthian Yacht Club Foot of Main Street, Tiburon	21	hoist (3,000 lbs.)	9′	none	none
Paradise Yacht Harbor West end Trinidad Dr., Tiburon	21	none	2.5′-6′	none	none
San Francisco Yacht Club Beach Road, Belvedere	21	hoist (3,000 lbs.)	10′	none	none

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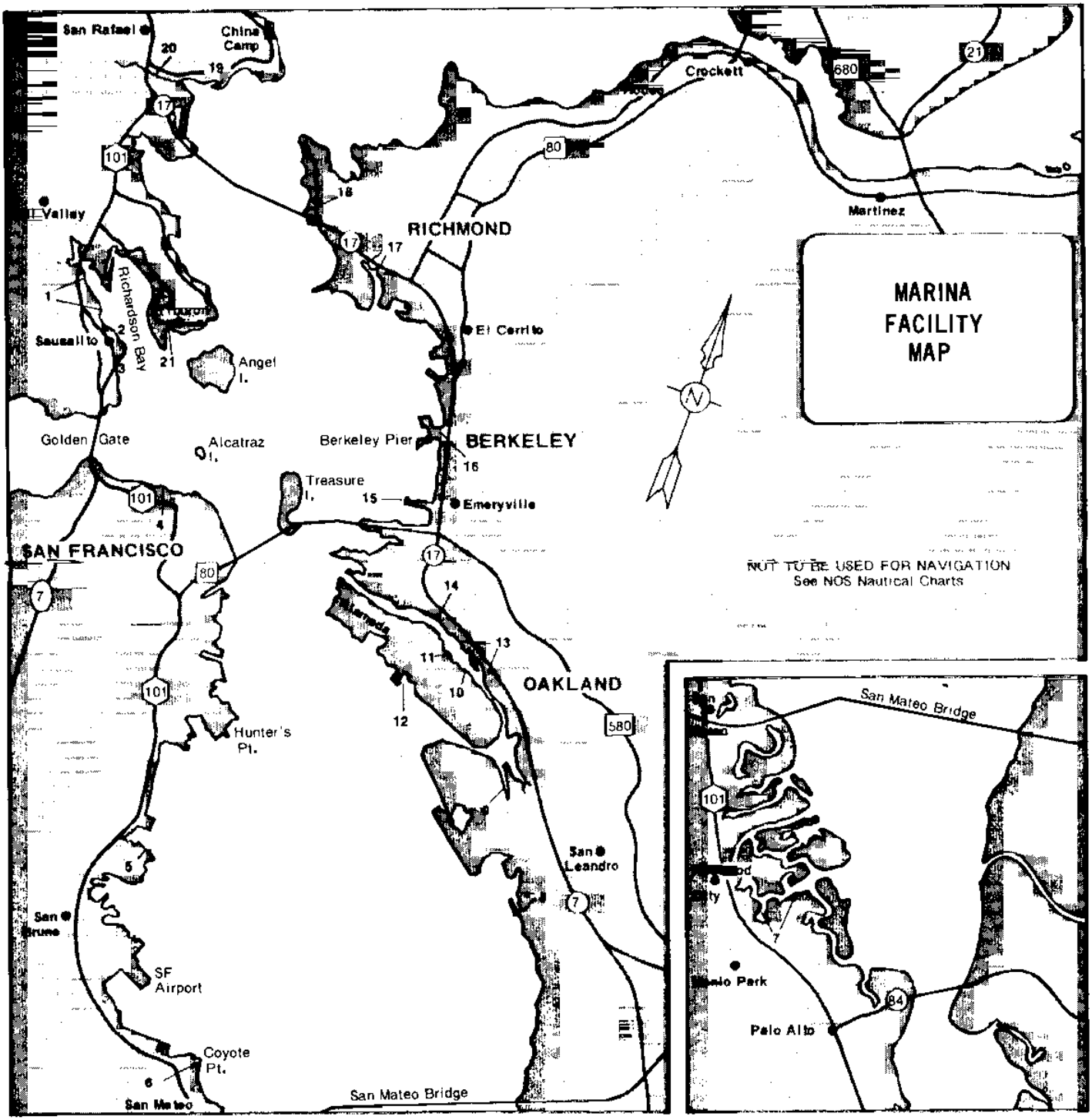
MARINA
FACILITY
MAP
NOT TO BE USED FOR NAVIGATION
See NOS Nautical Charts
San Rafael
China Camp
Crockett
Martinez
Valley
RICHMOND
Richardson Bay
Sausalito
Angel I.
El Cerrito
Golden Gate
Alcatraz I.
Berkeley Pier
BERKELEY
Treasure I.
Emeryville
SAN FRANCISCO
OAKLAND
Hunter's Pt.
San Leandro
San Bruno
SF Airport
Coyote Pt.
San Mateo
San Mateo Bridge
Palo Alto
80
101
580
680
17
21
84

WEATHER RULES FOR SAFE BOATING

Before setting out:

1. Check local weather and sea conditions.
2. Obtain the latest weather forecast for your area from radio broadcasts.

While afloat:

1. Keep a weather eye out for the approach of dark, threatening clouds, which may foretell a squall or thunderstorm; any steady increase in wind or sea; or any increase in wind velocity opposite in direction to a strong tidal current. A dangerous rip tide condition may form steep waves capable of broaching a boat.
2. Be aware of Coast Guard's Vessel Traffic System utilized by large commercial vessels approaching or departing San Francisco Bay. "Small craft (including sailboats) do *not* have the right-of-way over a larger ship that must navigate in a confined area. Ships require greater area to maneuver, longer distances to stop, and should be given a wide berth by all small craft. Stay clear of ships in channels and estuaries."*
3. Check radio weather broadcasts for latest forecasts and warnings.

What about navigation? Do you have the NOAA National Ocean Survey charts and other publications covering your area? Did you tell someone your boating plans or file a float plan?

DISPLAY SIGNALS

Small Craft Advisory:
Daytime: Red pennant
Nighttime: Red light over white light
Indicates: Forecast winds as high as 33 knots and sea conditions considered dangerous to small craft.

Gale Warning:
Daytime: Two red pennants
Nighttime: White light over red light
Indicates: Forecast winds in the range of 34-47 knots

Storm Warnings:
Daytime: Square red flag with black square centered
Nighttime: Two red lights
Indicates: Forecast winds 48 knots and above no matter how high the wind speed. If the winds are associated with a hurricane, storm warnings indicate forecast winds of 48-63 knots

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*See Department of Boating and Waterways "Boating Safety Hints for San Francisco Bay".

Hurricane Warnings:
Daytime: Two square red flags with black squares centered
Nighttime: White light between two red lights
Indicates: Forecast winds of 64 knots and above, displayed only in connection with a hurricane

Authorized Nautical Chart Agents for the Sale of Nautical Charts and Related Publications of the National Ocean Survey

San Francisco Bay Area:

Alameda—Svendsen's Yacht Center, 1851 Clement Avenue, John Beery Co., 2415 Mariner Drive, Mariner Square, Ballena Bay Marine Supply, 1136 Ballena Boulevard.

Berkeley—Brennan Supply Co., 805 University Avenue, Lucas College Book Co., Inc., 2430 Bancroft Way.

Oakland—Johnson and Joseph Co., Retail Division of C.J. Hendry Co., 76 Jack London Square, Steve's Marine, Inc., 1363 Embarcadero, C.E. Erikson and Associates, 337 17th St., Marine Parts Company, 1937 Embarcadero.

Palo Alto—Glover Marine, 3705 El Camino Real, West Coast Ropes, 850 San Antonio Road.

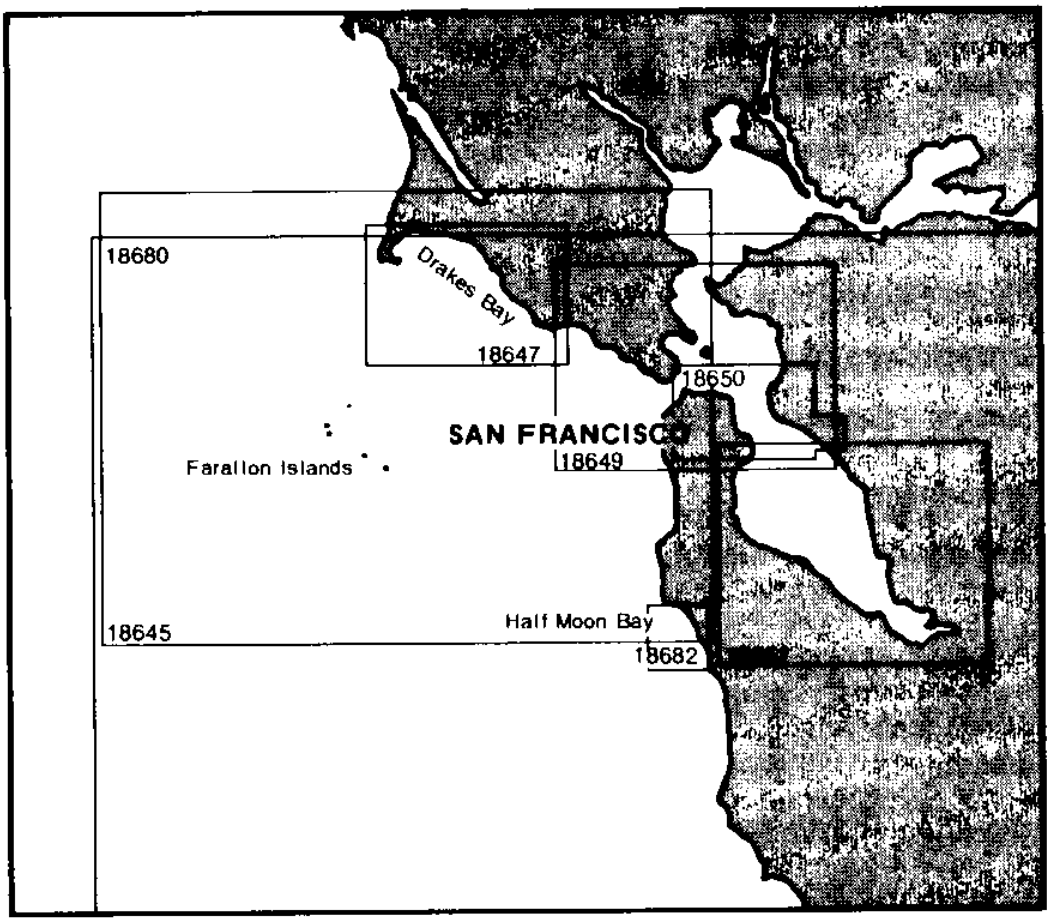
Princeton-By-The-Sea—Pillar Point Bait and Tackle, Capistrano Road.

Redwood City—SFO Marine, Inc., d/b/a The Ship's Store of Redwood City, 690 Broadway, Al's Marine Store, #1 Uccelli Blvd., Pete's Harbor.

San Francisco—George E. Butler, 160 2nd Street, Johnson and Joseph Co., 496 Jefferson Street.

San Rafael—Western Boat Shop, 101 Third Street, Loch Lomond Marine Supply, 100 Loch Lomond Drive, Steven's Navigation Co., 261 Loch Lomond Drive.

Sausalito—Weather Mark, 2650 Bridgeway, Anchorage Hardware and Marine Inc., 295 Harbor Drive, Marin Marine Supplies, 300 Harbor Drive, Sausalito Yacht Sales and Chandlery, P.O. Box 1398.



NATIONAL OCEAN SURVEY
SAN FRANCISCO BAY AREA CHARTS

	Old #	New #
Point Sur to San Francisco	5402	18680
Gulf of the Farallones	5072	18645
Drakes Bay	5599	18647
San Francisco Entrance	5532	18649
Half Moon Bay	5520	18682
San Francisco—Southern Part	5531	18651
San Francisco Bay—Candlestick Point to Angel Island	5535	18650

REFERENCES AND RELATED MATERIALS

Available from: Department of Boating and Waterways
1629 "S" Street
Sacramento, California 95814

ABC's of the California Boating Law
Boating Safety Hints for San Francisco Bay
Boating Safety Hints for Hunters and Fishermen
Angel Island by Boat
Towing Tips for the Trailor Sailor

Available from: University of California
Marine Advisory Program
554 Hutchison Hall
Davis, California 95616

Recreational Boat Insurance, Leaflet 21006

Available from: Distribution Division, C44
National Ocean Survey
NOAA
Riverdale, Maryland 20840

U.S. Coast Pilot 7: Pacific Coast, California, Oregon, Washington and Hawaii $6.00

Nautical Chart Catalog 2, U.S. Pacific Coast ..... No charge
Tide Tables: West Coast, North America and South America $3.75
Tidal Current Tables: Pacific Coast of North America and Asia $3.75
Marine Weather Services Chart: Point Conception, California to Point St. George, California ..... $ .25
Tidal Current Charts: San Francisco Bay $2.00

Available from: YRA Publications Office
1050 Sansome Street
San Francisco, California 94111

Yaching Year Book of Northern California $6.00

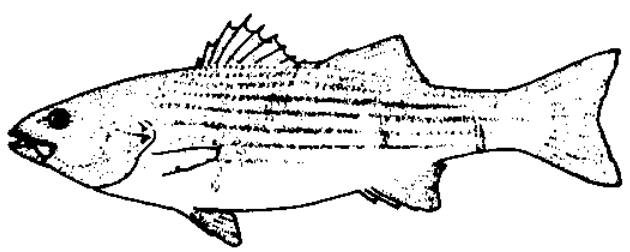
SPORTFISHING

San Francisco Bay, California's largest estuary, and the adjacent ocean waters provide a wide range of sportfishing opportunities. This section will cover some of the most important gamefishes and provide you with information on how, where and when to fish for them.

A fishing license is required for anyone 16 years of age or over to fish for any kind of fish or shellfish in California. The only time you will not need a license is if you are fishing from a public pier. Licenses can be purchased from all bait shops and most places where fishing equipment is sold. For California residents (6 continuous months of residing in California) a resident license is required ($5.00). If you plan to fish for salmon, a trout and salmon license stamp is required ($3.00). Short term licenses ($2.00) are available for those who don't plan to go fishing on a regular basis. Several types of non-resident licenses are available for visitors. Non-resident licenses good for one year ($20) and one good for ten days ($8) may be purchased.

Before you go fishing you should obtain a copy of the California Sportfishing Regulations and Necessary Licenses. These booklets and licenses are available at bait shops, boat landings and fishing tackle supply stores.

IMPORTANT SPORTFISH



STRIPED BASS, *Morone saxatilis:* Also known as stripers.

Size: State angling record 65 pounds; average 5-15 pounds, over 35 pounds is unusual.

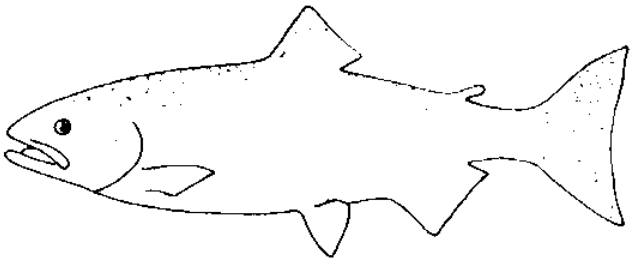
Habits: Occurs throughout San Francisco Bay and along ocean beaches outside the Golden Gate. Less common in winter and early spring when many of the bass migrate up the Sacramento and San Joaquin rivers to spawn. Commonly found near rocky areas with strong tidal action or in areas with concentrations of baitfish. Large groups of diving gulls often indicate that there is a school of feeding striped bass present.

Season: All year. Best fishing, May through November.

Limit: 3 fish, minimum size 16 inches.

Fishing Methods: Drifting with live bait, trolling or casting lures, bait fishing.

Baits: Natural baits include live anchovies or shiner perch, cut anchovies, sardines, pile worms. Artificial baits include bucktail jigs, spoons, plugs and plastic skirts.



KING SALMON, *Oncorhynchus tshawytscha:* Also known as chinook salmon, tyee salmon.

Size: State angling record 85 pounds; average 6-12 pounds, over 30 pounds is unusual.

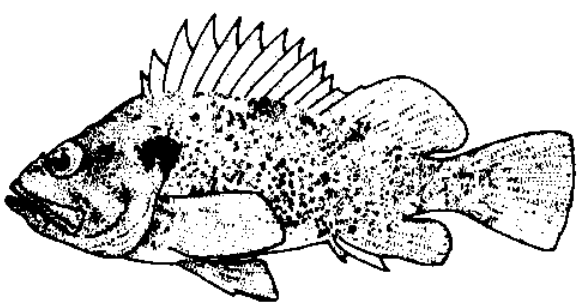
Habits: Most common in the ocean waters outside of San Francisco Bay. However, some large king salmon are caught inside the Bay each fall near Tiburon as they begin their upstream spawning migration. Most heavily fished offshore areas are between Muir Beach and Duxbury Reef, Double Point, "C" buoy, Farallon Islands, the light buoy, and Pedro Point. In some years silver salmon (*Oncorhynchus kisutch*) make up a significant part of the ocean catch. Silver salmon, also known as coho salmon, seldom weigh more than 15 pounds.

Season: Late winter through mid-fall. Exact dates depend on status of the salmon stocks. Generally as the season progresses, large salmon become more common in the catch.

Limit: Currently 2 fish, minimum size 22 inches except one salmon not less than 20 inches may be possessed.

Fishing Methods: Trolling slowly (1 to 2 knots) with bait or lures. A one to three pound weight is used to get the bait down to the desired depth (usually 10 to 50 feet). A sinker release is used which drops off the weight when the salmon strikes.

Baits: Dead anchovies or herring on a bait harness are the natural baits. Artificial baits include spoons and plugs.

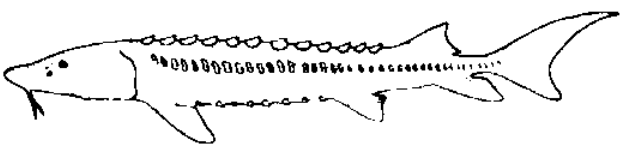


ROCKFISH: *Sebastes* sp.: also known as rock cod, Pacific red snapper.

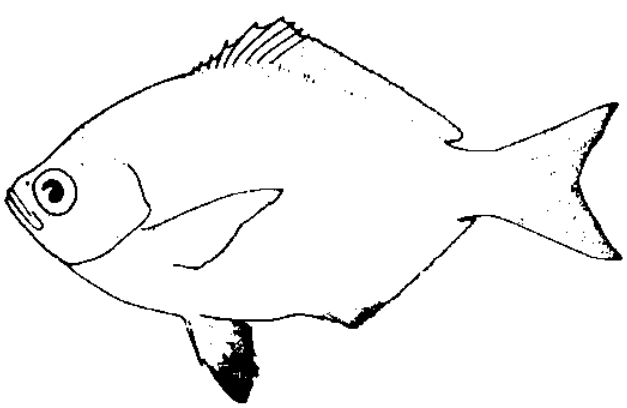
Size: About a dozen species are commonly caught in the San Francisco area. They range in size from about 8 inches up to 15 pounds. Rockfish captured inside San Francisco Bay usually less than 1 pound; those from the ocean waters average 2-4 pounds.

Habits: As their name implies, rockfish are usually caught in rocky areas from a few feet deep to depths of over 300 feet. Most species of rockfish are found near the bottom, although blue and yellowtail rockfish are found in schools well off the bottom. Inside San Francisco Bay small rockfish are found near rocky areas and piers (Lime Point, Fort Point, Angel Island). Common offshore fishing areas include Duxbury Reef, Point Reyes, Cordell Bank, Fanny Shoal and the Farallon Islands.

Season: All year.
Limit: 15 fish.
Fishing Methods: Bait fishing or jigging with heavy lures. Offshore, very heavy boat rods are used with 3 to 5 baited hooks and 1 or 2 pounds of weight. Inside San Francisco Bay much lighter equipment is used.
Baits: Natural baits include dead anchovies, squid, shrimp and herring. Artificial baits include shrimp flys, plastic skirts and heavy chrome plated jigs (8-20 oz.) Offshore, large lingcod (*Ophiodon elongatus*—state angling record 53 pounds) are frequently captured while fishing for rockfish.

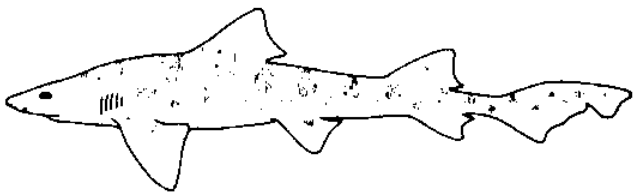


STURGEON, *Acipenser transmontanus.*
Size: State angling record is 420 pounds; reported to reach 20 feet, but fish over 100 pounds are unusual.
Habits: Sturgeon spawn in the Sacramento-San Joaquin Delta and spend most of their young life in that region. The majority of the fishery is located in San Pablo Bay, Suisun Bay and the Delta. However, a growing fishery exists in San Francisco Bay near Tiburon, Belvedere Point, San Quentin Point and Sausalito. Sturgeon feed primarily on bay shrimp, small fish and clams. Some years during the winter, sturgeon are caught in areas of extensive herring spawning in San Francisco Bay.
Season: All year.
Limit: One, which cannot be less than 40 inches.
Fishing Methods: Bait fishing on the bottom; they may not be taken by trolling or gaffing. (Usually one or two large hooks are used with a sliding sinker.)
Baits: Live grass shrimp, ghost shrimp and dead anchovies.

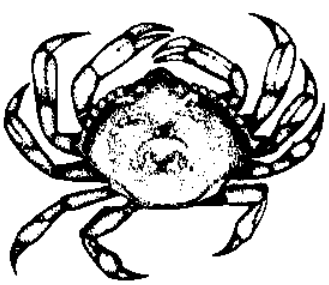


SURFPERCH: Family *Embiotocidae:* About ten species of surfperches are caught inside San Francisco Bay and along the ocean beaches.
Size: Shiner surfperch are the smallest (up to 7 inches) while the rubberlip perch is the largest (up to 18.5 inches).
Habits: Surfperches are very common around piers in the Bay. At times of the year redtailed perch are also commonly caught in the surf along the ocean beaches. One

species, the striped surfperch, is common in shallow rocky areas in the Bay and along the ocean coast. Surfperches give birth to live young.
Season: All year.
Limit: 20 in combination of all species with not more than 10 of any one species; there is no limit on shiner surfperch.
Fishing Methods: Fishing from piers (i.e. the Berkeley pier) with cut bait (size 4 to 10 hooks), casting from shore, at times small lures are used. Usually best fishery is near pilings (other fish are often caught while fishing for surfperch; these include jacksmelt, starry flounder, sculpins, small rockfish and greenling).
Baits: Natural baits include shrimp, pile worms, shore crabs, mussels, clams, anchovies and squid.



SHARKS AND RAYS: About half a dozen species of sharks, skates and rays are caught in the San Francisco Bay region.
Size: Leopard shark to 6.5 feet, brown smoothhound shark to 3 feet, bat ray to 158 pounds, blue shark to 231 pounds, six-gilled shark to 464 pounds, spiny dogfish to 5.2 feet.
Habits: Blue sharks are common in summer and fall outside the Golden Gate where they are taken while fishing for salmon and rockfish. The small inshore sharks and bat rays are common over mud and sand bottoms in the bay where they feed on clams, worms and small fish. Most of the sharks are excellent eating.
Season: All year.
Limit: No limit.
Fishing Methods: Bottom fishing with bait. Use heavy line and large hooks (1/0 to 8/0). Blue sharks are occasionally caught offshore using large flies after chumming the sharks toward the boat.
Baits: Squid seems to be most effective in the Bay; other baits are anchovies, shiner surfperch, herring and pile worms.



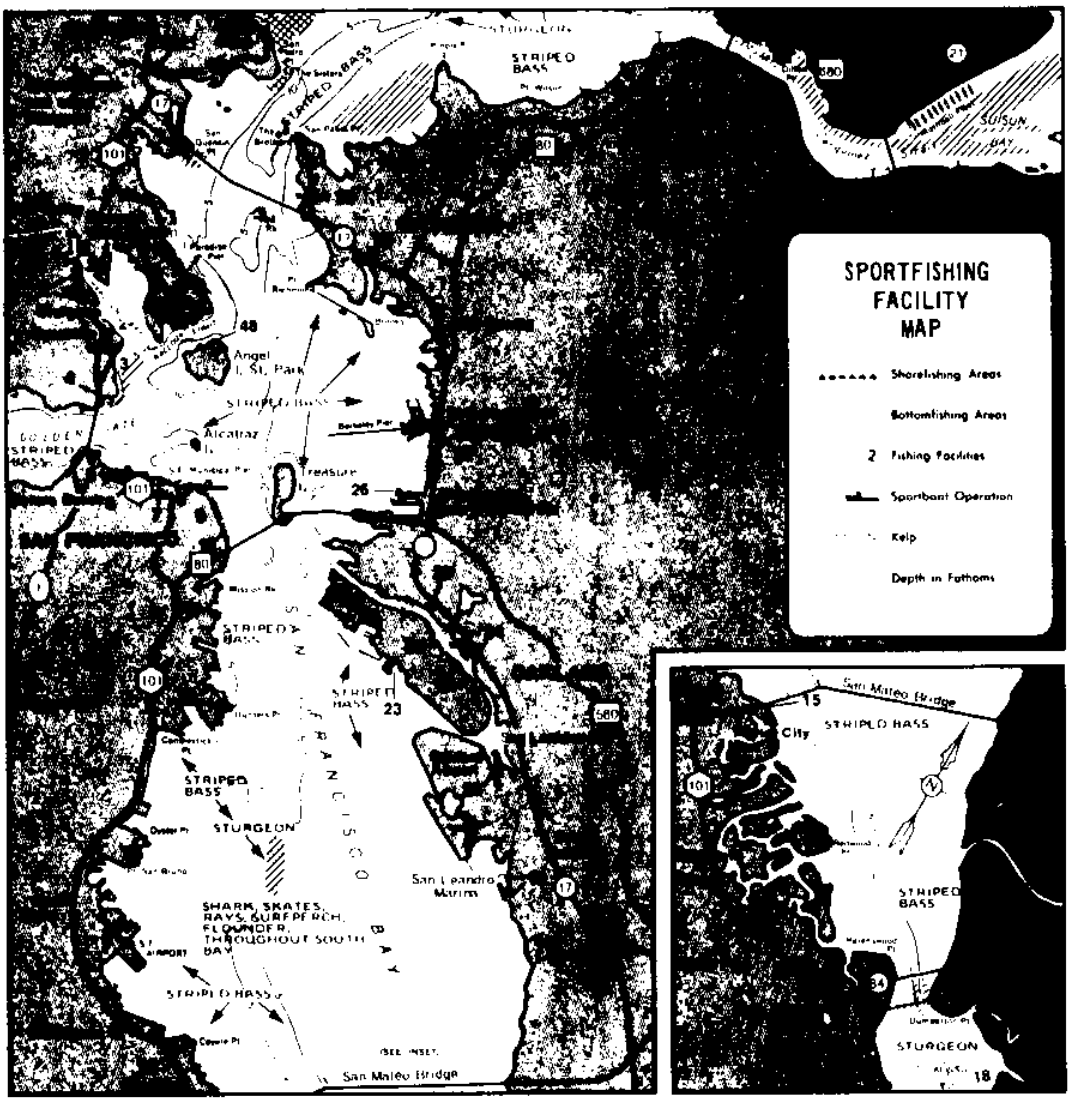
CRABS: Three species of crabs are commonly captured inside and outside San Francisco Bay. It is currently illegal to take one species of crab, the market or dungeness crab, *inside* San Francisco Bay.
Size: Rock crab to 5 inches across the back; red crab to 7 inches, market crab to 9 inches. Red and rock crabs have black-tipped pinchers and are dark red in color. Market crabs have white-tipped pinchers and a light red-brown color.

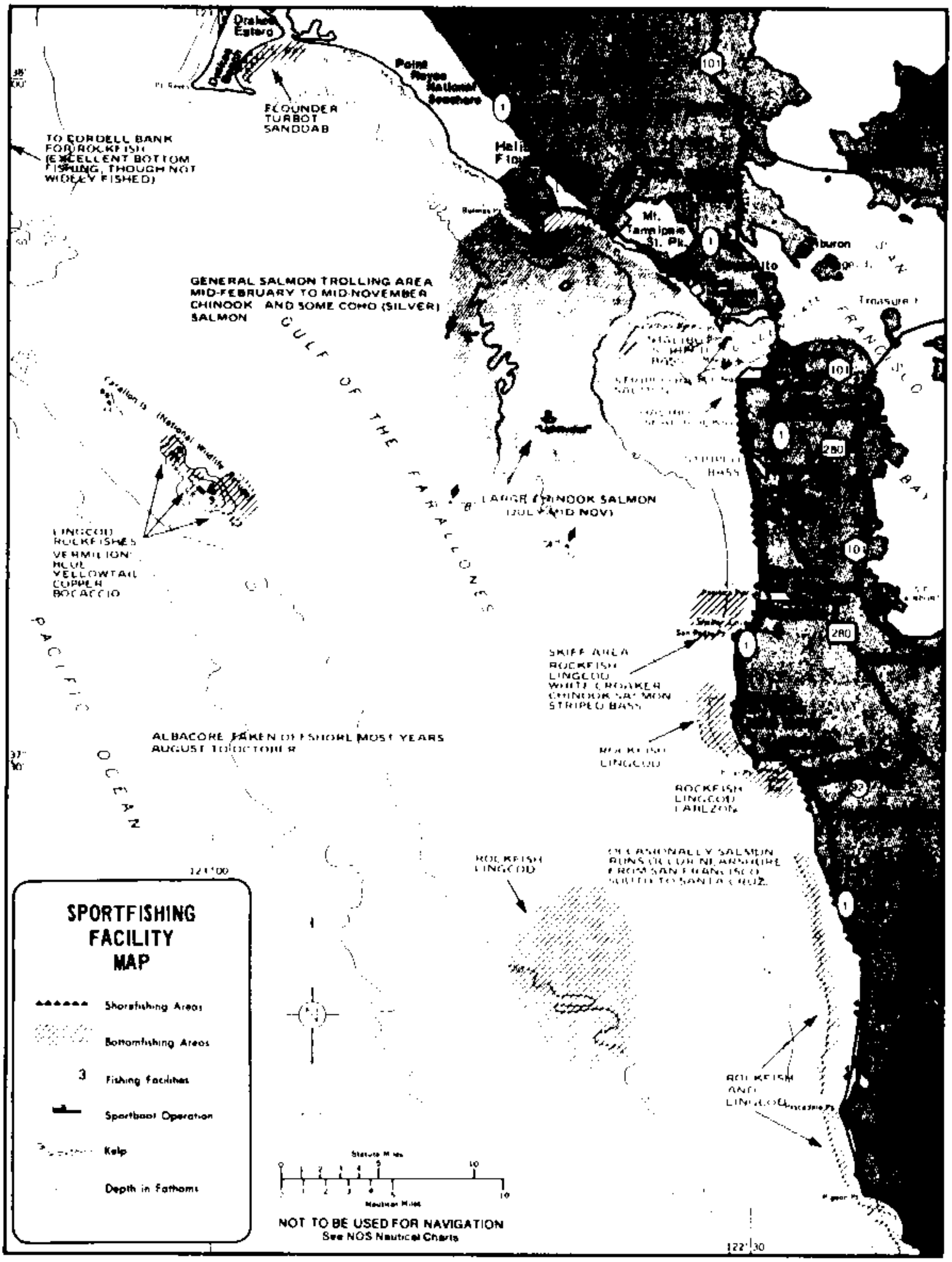
Habits: Red and rock crabs are common near rocks and piers around the bay. Market crabs are more commonly found on sandy bottoms and they are more common outside of San Francisco Bay. All are excellent eating.
Season: For red and rock crabs, all year; for market crabs no catch is allowed inside San Francisco Bay, outside the Bay the season is the second Tuesday in November through June 30.
Limit: Red and rock crabs, 35, minimum size 4 inches across the back market crabs, 10, minimum size 6¼ inches.
Fishing Methods: Baited traps or hoop nets fished on the bottom from piers. Traps available from local sportsfishing shops.
Baits: Fish carcasses, squid, anchovies, etc.
Note: Be sure to check the Sport Fishing Regulations for changes in seasons, limits and sizes.

SPORT FISHING FACILITY INDEX*

	Facility No.	Sport Boat Operation	Pier Fishing	Skiff Rentals	Launching	Jetty Fishing
Princeton, Half Moon Bay	1	•	•	•	•	•
San Pedro Point	2				•	•
Pacifica Pier	3		•			
Kappas Yacht Harbor	1	•			•	
Sausalito Boat & Tackle	1	•				
Clipper Yacht Harbor	1	•		•	•	
Turney Street Ramp	2				•	
Sausalito Yacht Harbor	3	•			•	
Fort Baker	4		•			•
Fort Point, Presidio	5		•			•
Golden Gate Yacht Harbor	6	•			•	
S. F., Small Craft	7				•	
Fisherman's Wharf Area	8	•	•		•	
Pier #7, San Francisco	9		•			
Ferry Building, S. F.	10		•			
Mission Rock Area, S. F.	11			•	•	
Hunter's Point, S. F.	12			•	•	
Oyster Point	13				•	
Coyote Point	14				•	
San Mateo Pier	15		•			
Redwood Creek	16		•		•	
Palo Alto Harbor	17				•	
Alviso	18				•	
San Leandro Marina	19		•		•	•
Doolittle Drive	20			•	•	
Grand Street, Alameda	21				•	
Pacific Marina, Alameda	22				•	
Ballena Yacht Club, Alameda	23				•	
Oakland Inner Harbor	24				•	
Jack London Marina	25				•	
Emeryville Marina	26	•				
Berkeley Marina	27	•	•		•	•
Richmond Harbor	28				•	
Red Rock Marina	29	•	•		•	
Loch Lomond Marina	45	•			•	
San Rafael Creek	46				•	
Paradise Pier	47		•			
Angel Island State Park	48		•			

*Adapted from: Squire, J.L., Jr. and S.E. Smith. 1977. *Angler's Guide to the United States Pacific Coast.* U.S. Dept. of Commerce, NMFS, #003-020-00113-1.


SPORTFISHING
FACILITY
MAP
Shorefishing Areas
Bottomfishing Areas
2 Fishing Facilities
Sportboat Operation
Kelp
Depth in Fathoms
STRIPED BASS
STURGEON
SHARK, SKATES, RAYS, SURFPERCH, FLOUNDER, THROUGHOUT SOUTH BAY
San Mateo Bridge
SUISUN BAY
Alcatraz
Angel I. St. Park
San Leandro Marina
City
STRIPED BASS
STURGEON
San Mateo Bridge



Drakes Estero
Point Reyes National Seashore
FLOUNDER
TURBOT
SANDDAB
TO CORDELL BANK FOR ROCKFISH (EXCELLENT BOTTOM FISHING, THOUGH NOT WIDELY FISHED)
Mt. Tamalpais St. Pk.
Tiburon
Treasure I.
GENERAL SALMON TROLLING AREA
MID-FEBRUARY TO MID-NOVEMBER
CHINOOK AND SOME COHO (SILVER) SALMON
GULF OF THE FARALLONES
SAN FRANCISCO BAY
LARGE CHINOOK SALMON (JULY-MID NOV)
LINGCOD
ROCKFISHES
VERMILION
BLUE
YELLOWTAIL
COPPER
BOCACCIO
PACIFIC OCEAN
SKIFF AREA
ROCKFISH
LINGCOD
WHITE CROAKER
CHINOOK SALMON
STRIPED BASS
ALBACORE TAKEN OFFSHORE MOST YEARS
AUGUST TO OCTOBER
ROCKFISH
LINGCOD
ROCKFISH
LINGCOD
CABEZON
ROCKFISH
LINGCOD
OCCASIONALLY SALMON RUNS OCCUR NEARSHORE FROM SAN FRANCISCO SOUTH TO SANTA CRUZ
ROCKFISH AND LINGCOD
101
280
1
92
SPORTFISHING FACILITY MAP
Shorefishing Areas
Bottomfishing Areas
3 Fishing Facilities
Sportboat Operation
Kelp
Depth in Fathoms
Statute Miles
Nautical Miles
NOT TO BE USED FOR NAVIGATION
See NOS Nautical Charts
122°30

COMMERCIAL PASSENGER FISHING VESSELS
(Party Boats)

If you don't own your own boat or if you are unfamiliar with the San Francisco ocean and bay waters, you may want to reserve a space on a party boat (commercial passenger fishing vessels). These boats are manned by professional crews who will maximize your chances of a successful fishing trip. Party boats go out daily for striped bass, salmon, rockfish and sturgeon from several San Francisco Bay Area landings. It is best to phone ahead for reservations and information on fishing conditions. Costs vary but generally run between $15 to $30 for a day's fishing. Rods and reels can be rented for about $3.00.

Major Commercial Passenger Fishing Vessel Locations:

Caruso's
Harbor Drive and Gate 5 Road
Sausalito

Hank Schramm's Sportfishing Center
3310 Powell Street
Emeryville Marina
Emeryville

The Sportsfishing Center
Fisherman's Wharf
300 Jefferson Street
San Francisco

Muny Bait and Sport Shop
3098 Polk Street
San Francisco

Sausalito Boat and Tackle
Waldo Point
Sausalito

Lee Anderson Charter Boat Service
Berkeley Marina

Pillar Point Fishing Trip
Princeton Pier on Half Moon Bay

Lucky Bait Shop
6608 San Pablo Avenue
Richmond

Captain John's Princeton Boats
Princeton Pier on Half Moon Bay

Other sportfishing boats are listed in the yellow pages of the phone book.

REFERENCES AND AVAILABLE MATERIALS ON SPORTFISHING

Available from: University of California Agricultural Publications
1422 Harbour Way South
Richmond, California 94804

1. Guide to the Coastal Marine Fishes of California #4065.....$2.12
2. Poke Pole Fishing #2555..... NC
3. Canning and Freezing Fish at Home #2425 ..... NC
4. Smoking Fish at Home #2669 ..... NC
5. Catching and Cooking Crabs #2546 ..... NC

6. Gyotaku—Japanese Fish Printing #2548 ..... NC
7. Recreational Boat Insurance #21006 ..... NC
8. Preparation of Shark and Skate #21118 ..... NC
9. Spiced and Pickled Seafoods #21122, ... NC
10. Smoked Shark and Shark Jerky for Home and Trail #21121 .... NC
11. Fish Eggs for Caviar and Bait #21114 ..... NC
12. Safe Handling and Storage of Seafoods #21119 ..... NC
13. Seafood Myths and Misconceptions #21120 ..... NC

Available from: Superintendent of Documents
U.S. Government Printing Office
Washington, D.C. 20402

1. Anglers' Guide to the United States Pacific Coast
Stock #003-020-00113-1 .....$7.50

Available from: Office of Procurement
Documents Section
P.O. Box 20191
Sacramento, California 95820

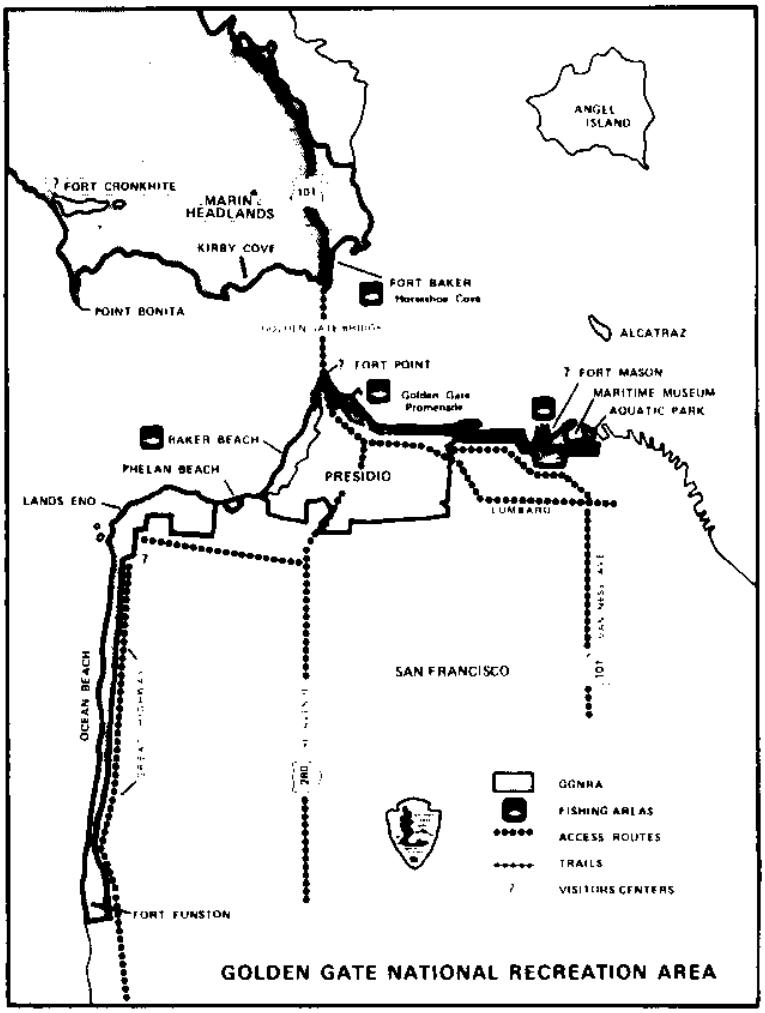
California Department of Fish and Game Publications

1. Inshore Fishes of California #9 .....$ .70
2. Offshore Fishes of California #8 ..... .70
3. Anadramous Fishes of California #16 ..... .70
4. Anglers Guide to Striped Bass #41 ..... .40
5. Anglers Guide to Salmon and Steelhead #42 ..... .40
6. Ocean Fishing Maps—San Francisco, San Mateo, and Santa Cruz Counties #53 ..... .40

URBAN ACCESS
GOLDEN GATE NATIONAL RECREATION AREA (GGNRA)
NATIONAL PARK SERVICE
U.S. DEPARTMENT OF THE INTERIOR

The climate of San Francisco affords ample opportunity to explore the area's out-of-doors. Access to the area's open space was made possible with the establishment of the GGNRA. The urban shoreline of the GGNRA is both physically and historically diverse. The park encircles the northern and western edge of San Francisco and includes within its boundary the scenic Marin Headlands (See map page 34.)

A brief sample of the park's recreational access possibilities might include a visit to Fort Funston to enjoy a view of the ocean panoramas and observe hang-gliders soaring from the cliffs. Others might prefer an invigorating jog to the rhythm of the surf at Ocean Beach. On most any day one can find surf fishermen and family picnics at Baker Beach.



The Golden Gate Promenade from Fort Point to Fort Mason offers a spectacular bayside pedestrian walkway. It is a favorite for walking, bicycling, jogging, fishing, exercising, or utilizing the Parcourse along the scenic bayshore.

GGNRA piers are open to the public and many make use of this access for fishing and crabbing. Other pier areas within the park serve as the mooring for historical seafaring vessels. Many of these vessels contributed to the early economic development of the Pacific Coast. The heritage of these vessels and others is preserved for all to enjoy at the National Maritime Museum located adjacent to Aquatic Park and the Hyde Street Pier.

The sprawling Marin Headlands, north of the Golden Gate Bridge, are a part of the GGNRA offering unexcelled natural areas. Hiking, picnicking, horseback riding, camping, fishing areas abound. Day and overnight camping spots are available by permit. A youth hostel is located at the old Fort Barry parade ground.

For further information regarding GGNRA facilities contact GGNRA Headquarters at Fort Mason, 556-0560 or the visitor centers at Fort Point, the Cliff House, and Fort Cronkhite (Marin Headlands). Brochures describing park facilities, special events and bus access routes are available.

USF & WS photo by Bruce MacGregor.

BAY ACCESS: SAN FRANCISCO BAY NATIONAL WILDLIFE REFUGE

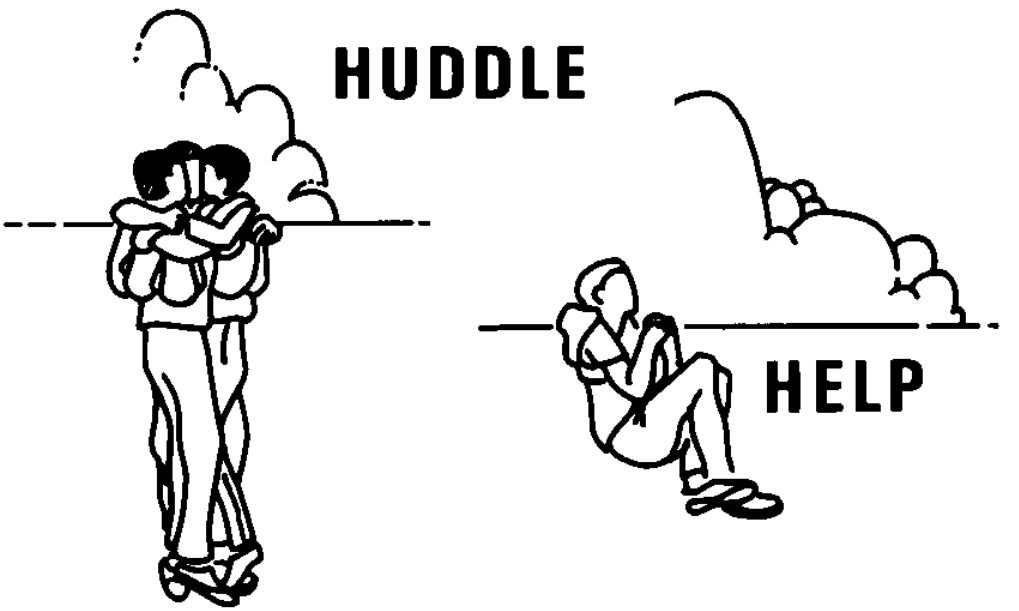
At the south end of San Francisco Bay, the Fish and Wildlife Service is developing a 23,000-acre National Wildlife Refuge for the benefit of wildlife and people. The primary purposes of this area are to preserve open space for wildlife; to manage the populations of seals, migratory birds and other wildlife in south San Francisco Bay; and to provide opportunities for wildlife-oriented recreation, interpretation and environmental education.

Despite the impacts of an expanding human population along its shoreline, south San Francisco Bay supports a rich and diverse population of fish and wildlife. Its salt marshes, mudflats, open water and certain salt ponds are prime wildlife habitat. Harbor seals still "haul out" and give birth to their young on its muddy slough banks, and an estimated 70% of all shore birds on the Pacific Flyway use the south Bay at some time of the year.

A major purpose of the refuge is to increase people's awareness of the importance of estuarine areas like San Francisco Bay. To this end, the Fish and Wildlife Service has established an Interpretive Center in Fremont and an Environmental Education Center in the Alviso district of San Jose. These centers offer educational programs to the general public and to school classes, respectively. In addition to these centers, the refuge offers several miles of hiking trails. Over the next several years, approximately 30 miles of trails, two fishing piers and numerous outdoor interpretive displays will be developed. For further access information regarding the refuge facilities call (415) 792-0222.

HYPOTHERMIA AND COLD WATER SURVIVAL

Finding yourself in the cold San Francisco Bay waters can be a very serious situation due to hypothermia, the lowering of your inner body temperature. Studies have shown that if you fall into 50° F water with a life jacket, you can expect to survive for 2½ to 3 hours. Women and children, due to their smaller body size, have a shorter survival time. There are several things you should know to increase your survival time in cold water. Even a few minutes of survival time can mean the difference between rescue and death.



- Do not swim unless you are sure you can make it. Tests show that the average person, swimming with a life jacket, can swim slightly less than one mile in 50° F water before being overcome by hypothermia. Your body cools 35% faster swimming than holding still.
- Your head, neck, groin and the sides of your chest are regions of high heat loss. Concentrate your efforts for reducing heat loss on these body regions.
- If alone, use the Heat Escape Lessening Posture (HELP). This can increase your survival time by 50%.
- If there are several of you, huddling together can also up your survival time 50%.
- Don't drink alcohol because it increases your cooling rate about 20%.
- Loose fitting kapok lifejackets offer no significant protection from cold water. Snug fitting form vests and flotation jackets can increase your predicted survival time by 50% to 75%.
- If you plan to spend much time around cold waters or earn your living at sea, you should consider the use of thermofloat jackets or full survival suits. These two flotation devices increase your predicted survival time by almost 400%.

MARINE WEATHER SERVICE

NOAA's National Weather Service provides weather forecasts, reports and warnings for those who have a marine interest. Forecasts for boating areas are issued every 6 hours. During severe weather, high tides are also broadcast. Boaters in San Francisco Bay can tune to the 162.55 MHz (KHB-49) continuous weather broadcasts from Redwood City. These broadcasts include forecasts and warnings for the Bay Area, including coastal waters from Point Arena to Point Conception. Telephone weather information can be obtained from the National Weather Service at Redwood City (415) 876-9462.