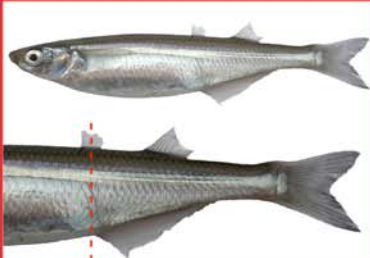




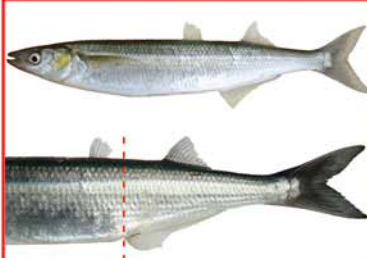
# Marine Bait Fishes\*

## Of Northern California\*\*



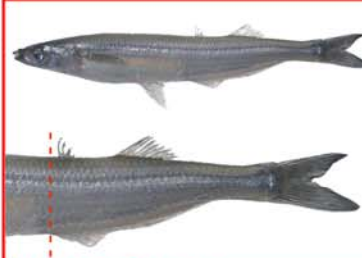
**Topsmelt**

5 to 8 scales between dorsal fins  
Anal fin begins beneath first dorsal fin  
Teeth forked, in one row  
To 14.5 inches



**Jacksmelt**

10 to 12 scales between dorsal fins  
Anal fin begins behind first dorsal fin  
Teeth not forked, in two rows  
To 17.5 inches



**California Grunion**

Teeth tiny or absent  
Anal fin begins before first dorsal fin  
Spawns at night on sandy beaches  
To 7.5 inches



**Night Smelt**

(AKA: "night fish") Pectoral fin more than 1/2 distance to pelvic fin, jaw extends to rear of eye, night spawner  
To 9 inches (pectoral fins highlighted)



**Surf Smelt**

(AKA: "day fish") Pectoral fin less than 1/2 distance to pelvic fin, jaw extends to front of eye, day spawner  
To 11 inches (pectoral fins highlighted)

### Atherinidae: Silversides Family



**American Shad**

1 row of dark spots on sides, striations (parallel grooves) on gill covers (in adults), deep body, compressed.  
Belly sharply keeled. To 30 inches



**Pacific Sardine**

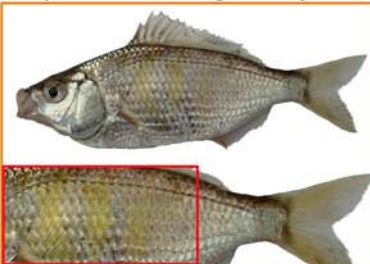
1 to 2 rows of dark spots on sides  
Striations (parallel grooves) on gill covers, spindle shaped, belly weakly keeled. To 16.25 inches



**Pacific Herring**

No spots on sides  
No striations (parallel grooves) on gill covers, belly weakly keeled  
To 11 inches (in CA.)

### Clupeidae: Herring Family



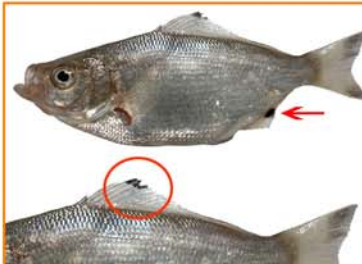
**Shiner Perch**

Faint yellow bars on sides  
Often speckled  
To 7 inches  
(See: Common Surfperches of CA.)



**Dwarf Perch**

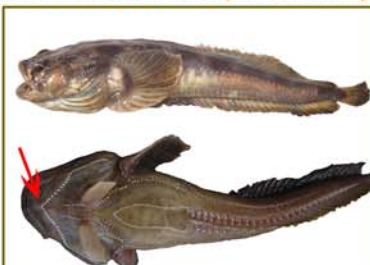
Black triangle at base of pectoral fin  
Irregular stripes crossed by dark bars  
Dark blotches on anal and dorsal fins  
To 6.25 inches



**Spotfin Surfperch**

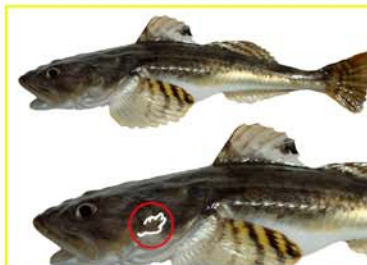
Silvery  
Black spot on anal, dorsal and tips of tail fins; often mistaken for shiner perch  
To 8 inches

### Embiotocidae: Surfperch Family



**Plainfin Midshipman**

"V" shaped series of photopores (small white dots) on "chin," often found under rocks at low tide. May produce audible buzzing sound. To 15 inches



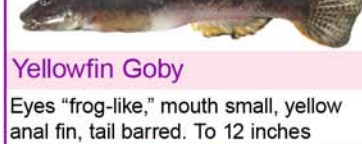
**Pacific Staghorn Sculpin**

(AKA: "bullhead")  
Antler-like spines on "cheeks"  
No scales, dark blotch on rear of first dorsal fin. To 18 inches



**Longjaw Mudsucker**

Jaw extends to gills, no bars on tail, head flattened. To 8.5 inches



**Yellowfin Goby**

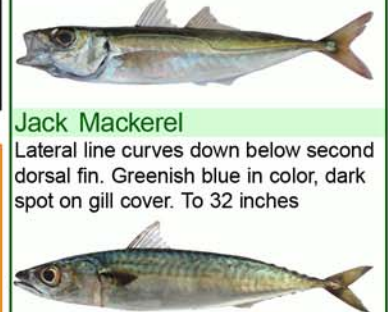
Eyes "frog-like," mouth small, yellow anal fin, tail barred. To 12 inches

### Osmeridae: True Smelts



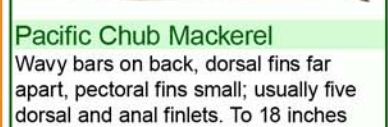
**Northern Anchovy**

Round in cross section, large mouth  
To 9 inches



**Jack Mackerel**

Lateral line curves down below second dorsal fin. Greenish blue in color, dark spot on gill cover. To 32 inches



**Pacific Chub Mackerel**

Wavy bars on back, dorsal fins far apart, pectoral fins small; usually five dorsal and anal finlets. To 18 inches



**Pacific Sanddab**

Ridge above lower eye, lateral line straight; often with orange spots  
To 6.25 inches



**Pacific Tomcod**

Short chin barbel, 3 dorsal fins, two anal fins, olive above, white below, edges of fins dusky  
To 12 inches

### Miscellaneous Bait Fishes

Produced, designed, photographed by Kirk Lombard. Special thanks to Pete Anastole, Keith Fraser and Justin Morris for providing specimens.

\* "Bait Fishes" is used here as a generic term for small or, in some cases, medium sized salt water species. Many of these "bait fishes" (surf smelt, jacksmelt, Pacific mackerel, etc) are pursued as sport fish in their own right and are not exclusively used for bait. As regulations for each of these may differ, please check the California Ocean Sport Fishing regulations booklet for rules regarding bag limits, closures, size limits and live bait restrictions, and then... go fishing!

\*\* "Northern California" refers here to all ocean or bay waters between Pigeon Point in the south and the California-Oregon border in the north.

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