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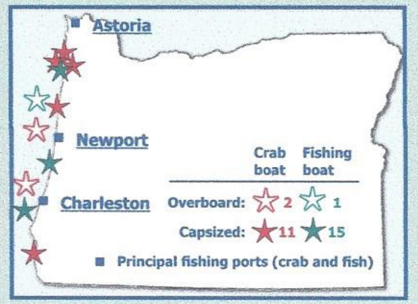
Commercial Crab Fishing in Oregon

Ocean Commercial and Charter Fishing Fatalities, Oregon 2003-2008



Crab boats

13 worker fatalities in 7 incidents:

- 2 overboard at sea
- 1 in capsized vessel in surf off beach
- 10 in capsized vessels crossing bar (6 of 10 crossing Tillamook bar at Garibaldi)

Fishing boats

3 worker fatalities, 13 other fatalities in charter vessels:

- 1 lost at sea
- 1 overboard at sea
- 14 in capsized vessels crossing bar (11 of 14 crossing Tillamook bar at Garibaldi)

Fatality Index

Current worker fatality rates (the number of fatalities per 100,000 workers):

- All national fisheries:	115
- Pacific fisheries – California, Oregon, Washington:	240
- Alaska fisheries:	105
- Pacific shellfish fisheries:	360
- Northwest Dungeness crab fishery:	460
- Alaska Bering Sea crab fishery:	305
- Alaska Bering Sea crab fishery in the 1990s: (before gear, vessel, and training safety initiatives)	770
- Oregon tree fallers in logging:	260
- Oregon log truck drivers:	240
- All workers:	4

REFERENCE: Commercial Fishing Fatalities – California, Oregon, and Washington, 2000-2006. MMWR, 2008;57:426-429. Reprint: JAMA, 2008;300(13):1510-1511

Crab Fishing Safety

- Attend safety drill training (contact the Oregon Dungeness Crab Commission or U.S. Coast Guard for local schedules).
- Policy: Require the use of lifejackets during bar crossings in treacherous conditions (or in any conditions).
- Policy: Expand requirements for stability reports to all crab boats (currently only required for boats over 79 feet long).
- Policy: Make dockside inspections mandatory (currently voluntary).
- Policy: Consider the use of quotas to eliminate derby fishing.

Coastal bars can be dangerous!

Tips for crossing safely

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Recently a skipper was returning to Newport, Oregon, in his newly acquired 60-foot (18-meter) trawler. With considerable sea experience in smaller boats, he had only limited experience in a craft of this size. The sea was rough, the wind strong from the southwest. In a smaller boat, he would never have attempted to come in. Instead, perhaps lulled by the security of a larger boat, he approached the bar with only a moment's hesitation.

As he neared the bar, waves and swell steepened abruptly, then started to break. A swell lifted the stern, pitching the boat broadside to the seas—and, in one awesome motion, the trawler rolled over far enough to put its masts underwater. The hull labored with masts submerged for long moments (who looks at a watch in a situation such as this?) as green water washed in from every direction.

When the 60-footer finally righted, the bow faced seaward. Strangely enough, the engine was still running; the skipper, regaining his feet, eased the boat back out to sea.

Damage: all windows and ports gone; most gear topside, including masts, washed away; all electronics drowned in saltwater; skipper bruised and in shock.

Experienced skippers say that around Northwest ports, the most likely place for an accident is on the bar. In the Pacific Northwest, the coastal bar ranks as a prime cause of vessel damage and of injury—sparing neither the novice nor the experienced.

The damage to life and property continues to run high. . . . Why *are* bars so dangerous? What causes them to be so unpredictable? What can you do to cross safely?

What is a coastal bar?

Quite simply, it is an underwater sand or gravel bank at a river mouth that obstructs navigation. Simple as that may sound, it poses special hazards to mariners.

How do coastal bars form?

Rivers carry great loads of suspended material from tributaries into lakes and oceans. Our forebears knew this; thoughout history, people have not only traveled down rivers but also used them as

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handy dumps for trash and sewage, knowing the offending debris would wash downstream.

How much sediment streams can carry is directly related to how fast they flow. Where water moves fast, a river can carry both small and relatively large particles (such as gravel, coarse sand, and mud). As water slows, larger particles settle to the bottom.

Where a river flows round a bend (as at *A* in figure 1), it speeds up around the outer curve, while the water along the inner curve slows, dropping sediment and building shoals. At bend *B* in figure 1 the curve is reversed. The slower water along the inner curve occurs at the other side of the streambed, but the principle holds—as it does for coastal bars, as well.

Where the river nears the ocean, its streambed normally is wider. As it widens, its current slows; and as it slows, sediments settle to the bottom.

Where a river finally meets the ocean, river current comes essentially to a stop. Here almost all of the remaining suspended loads of finer sands and

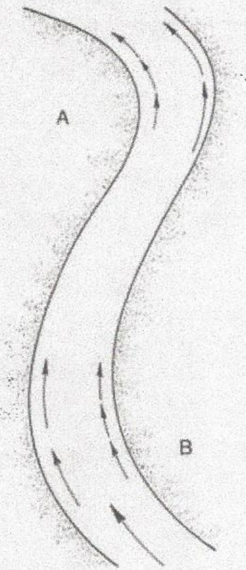

Figure 1.—This simplified drawing shows a river's flow speeding up around two outer curves, above at Bend A, below at bend B. Its flow is slower and shallower at the inner curve in each case; here sediments drop and shoals tend to build.