

OREGON DEPARTMENT OF FISH AND WILDLIFE REPORT ON CONSIDERATION OF INSEASON ADJUSTMENTS

The Oregon Department of Fish and Wildlife (ODFW) proposes adopting revised mortality rates for several species of management concern discarded in the Oregon recreational groundfish fishery. Historically, in the Marine Recreational Fisheries Statistical Survey (MRFSS) sampling program, anglers reported their discarded fish as either dead or alive. Often a fish discarded alive would eventually die due to the effect of barotrauma. Thus, total discard mortality was underestimated by this approach. Currently, in the Ocean Recreational Boat Survey (ORBS), anglers are asked how many fish were discarded, and a mortality rate of 100% is applied to all rockfish (except canary rockfish), overestimating total discard mortality.

At-sea observations were conducted on recreational charter vessels off Oregon during 2001, 2003-2005. A total of 360 vessels trips were conducted. Each year the observations were distributed across the state in an effort to represent the relative magnitude of catch by area. The annual goal was to conduct 100 observations, but that goal was not always achieved due to inseason closures. The number of rockfish observed by species or species group, discarded in the nearshore recreational fishery is reported in Table 1.

ODFW recommends adopting a similar approach as is used for the commercial open-access nearshore fishery to determine mortality of discarded groundfish. The approach incorporates at-sea observations of catch by species, stratified by depth, with angler reported discard, and the stratum based mortality rates by species adopted for the commercial open-access fishery.

The species of rockfish caught inside of 20-fathoms, and for which mortality rates are derived, include black, blue, other nearshore rockfish, canary, and yelloweye. The distribution of discarded fish by species and depth bin (fm) based on at-sea observations are identified in Table 2. Observed distributions are presented for all-depth fisheries, and predicted distributions are presented for fisheries closed seaward of 40-fathoms, 30-fathoms, 20-fathoms, and 10-fathoms.

Mortality rates for fish discarded by depth strata are detailed in Table 3 and represent the same rates used for commercial open-access nearshore fisheries. Consistent with the open-access nearshore commercial fishery, a mortality rate of 100% would be applied to all rockfish caught and discarded in waters deeper than 20-fathoms. These mortality rates were applied to the species distributions (Table 2) to determine the comprehensive mortality rates detailed in Table 4. These mortality rates are applied to estimated discard, calculating estimated mortality.

ODFW recommends applying a seven percent mortality rate in the Oregon recreational groundfish fishery for discarded lingcod, cabezon, and greenling species, as is used in the commercial open-access nearshore fishery. In addition, ODFW recommends a seven percent mortality rate be used for shore and estuary boat fisheries for all species discarded because, as barotrauma is not an issue, mortality is mostly related to hook location.

Table 1. 2001, 2003-2005 Count of released fish by depth bin (fm). Canary and yelloweye data from open all depth periods only; black, blue, and other nearshore rockfish data from all periods. Other nearshore rockfish includes brown, copper, quillback and china rockfishes (no discards of other nearshore rockfish species were observed).

Species	<=10	11-20	21-30	31-40	>40	Grand Total
Black rockfish	296	372	20	0	0	688
Blue rockfish	183	622	53	0	0	858
Other nearshore rockfish	1	8	2	0	0	11
Canary rockfish	13	107	31	5	52	208
Yelloweye rockfish	0	5	2	0	13	20

Table 2. Distribution of released fish by depth bin (fm) when open all depths.

Species	<=10	11-20	21-30	31-40	>40	Sample Size
Black rockfish	43%	54%	3%	0%	0%	688
Blue rockfish	21%	72%	6%	0%	0%	858
Other nearshore rockfish	9%	73%	18%	0%	0%	11
Canary rockfish	6%	51%	15%	2%	25%	208
Yelloweye rockfish	0%	25%	10%	0%	65%	20

Predicted distribution of released fish when closed seaward of 40 fm

Species	<=10	11-20	21-30	31-40	Sample Size
Black rockfish	43%	54%	3%	0%	688
Blue rockfish	21%	72%	6%	0%	858
Other nearshore rockfish	9%	73%	18%	0%	11
Canary rockfish	8%	69%	20%	3%	156
Yelloweye rockfish	0%	71%	29%	0%	7

Predicted distribution of released fish when closed seaward of 30 fm

Species	<=10	11-20	21-30	Sample Size
Black rockfish	43%	54%	3%	688
Blue rockfish	21%	72%	6%	858
Other nearshore rockfish	9%	73%	18%	11
Canary rockfish	9%	71%	21%	151
Yelloweye rockfish	0%	71%	29%	7

Predicted distribution of released fish when closed seaward 20 fm

Species	<=10	11-20	Sample Size
Black rockfish	44%	56%	668
Blue rockfish	23%	77%	805
Other nearshore rockfish	11%	89%	9
Canary rockfish	11%	89%	120
Yelloweye rockfish	0%	100%	5

Table 3. Mortality rates developed by the GMT for use in the commercial open access model.

Species	≤10 fm	11-20 fm	21-30	31-40	> 40 fm
Black rockfish	10%	40%	100%	100%	100%
Blue rockfish	10%	40%	100%	100%	100%
Other nearshore rockfish	10%	50%	100%	100%	100%
Canary rockfish	10%	55%	100%	100%	100%
Yelloweye rockfish	50%	90%	100%	100%	100%

Table 4. Recommended mortality rates for all-depth fisheries and fisheries closed seaward of 40-fathoms, 30-fathoms, 20-fathoms and 10-fathoms.

Species	<=10 fm	<= 20 fm	<= 30 fm	<= 40 fm	All depth
Black rockfish	10%	27%	29%	29%	29%
Blue rockfish	10%	33%	37%	37%	37%
Other nearshore rockfish	10%	46%	55%	55%	55%
Canary rockfish	10%	50%	60%	62%	71%
Yelloweye rockfish	50%	90%	93%	93%	98%