

Long term decline in White Bass population on the Mississippi have been noted both by anglers and biologists.

Multiple data sets including Long Term Resource Monitoring (LTRM) (Figure 1), Large Lake gillnets (Lake Pepin) (Figure 2), and harvest numbers from creel surveys (Pool 4) (Figure 3) all show a declining trend in White Bass going back to at least the late 1980s.

Aging data from Pool 4 indicates a population that grows quickly, matures at age 3-4, and has a surprisingly long lifespan (Pool 4 examples have been found to be up to 17 years old when aged with otoliths). After reaching maturity growth slows dramatically as shown in Table 1 where the mean length of Age 4, Age 5, and Age 6 White Bass are nearly the same.

White Bass are also quite mobile. A study conducted in 2013 out of the Lake City Area Fisheries Office tagged ~2500 White Bass primarily in upper Pool 4. The tag returns received since the beginning of the study (Figure 4) show extensive movement with recapture locations ranging from Taylor's Falls on the St. Croix and the Apple River in Wisconsin at the upstream extreme to Pool 9 by Lansing, Iowa at the downstream extreme. Most tag returns came from Pool 4 or the St. Croix River, and returns tended to cluster in areas as if the tagged population was moving as a unit.

Length Group	Sample size	Subsample size	Age																						
			0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17					
4.0 - 4.9	8	8	8																						
5.0 - 5.9	279	279	279																						
6.0 - 6.9	32	32	32																						
7.0 - 7.9	13	13	13																						
8.0 - 8.9	8	2	4	4																					
9.0 - 9.9	53	26	51	2																					
10.0 - 10.9	46	32	43	3																					
11.0 - 11.9	10	8	3	8																					
12.0 - 12.9	57	43	45	9	3																				
13.0 - 13.9	87	61	26	31	11	9	9	1																	
14.0 - 14.9	94	82	14	24	24	17	5	8	2																
15.0 - 15.9	47	41	1	8	2	3	11	7	3	6	2	1	1	0	1	0	1	0	0						
16.0 - 16.9	7	5					3	3																	
17.0 - 17.9	0	0																							
Totals	741	632	336	101	83	56	46	35	29	17	18	9	6	2	1	1	0	1	0	0					
Percent			45.3	13.6	11.2	7.5	6.2	4.7	3.9	2.4	2.4	1.2	0.8	0.3	0.2	0.2	0.0	0.2	0.0	0.0					
Mean Length (in)			5.7	10.0	12.5	13.7	14.3	14.3	14.4	15.2	15.3	15.6	15.5	15.6	16.3	15.7									
Standard Deviation			0.49	0.49	0.79	0.65	0.70	0.42	0.53	0.58	0.69	0.61	0.40	0.03											
Minimum Length (in)			4.6	8.9	9.5	12.2	12.8	13.5	13.8	14.3	14.7	15.1	15.6	16.3	15.7										
Maximum Length (in)			8.0	11.3	13.7	15.0	15.6	15.5	15.5	16.0	16.3	15.9	15.6	16.3	15.7										

Apparent long term declines in White Bass numbers don't have a clear cause. Total annual mortality has been calculated at ~30%. This is considerably lower than mortality for species like Walleye and Sauger. Decline may be driven by changing environmental factors (e.g. water clarity, habitat availability) or by changing species composition (e.g. increases in Smallmouth and Largemouth Bass or Yellow Perch).

Q7 - When you fish the Mississippi River, how frequently do you fish for White Bass?

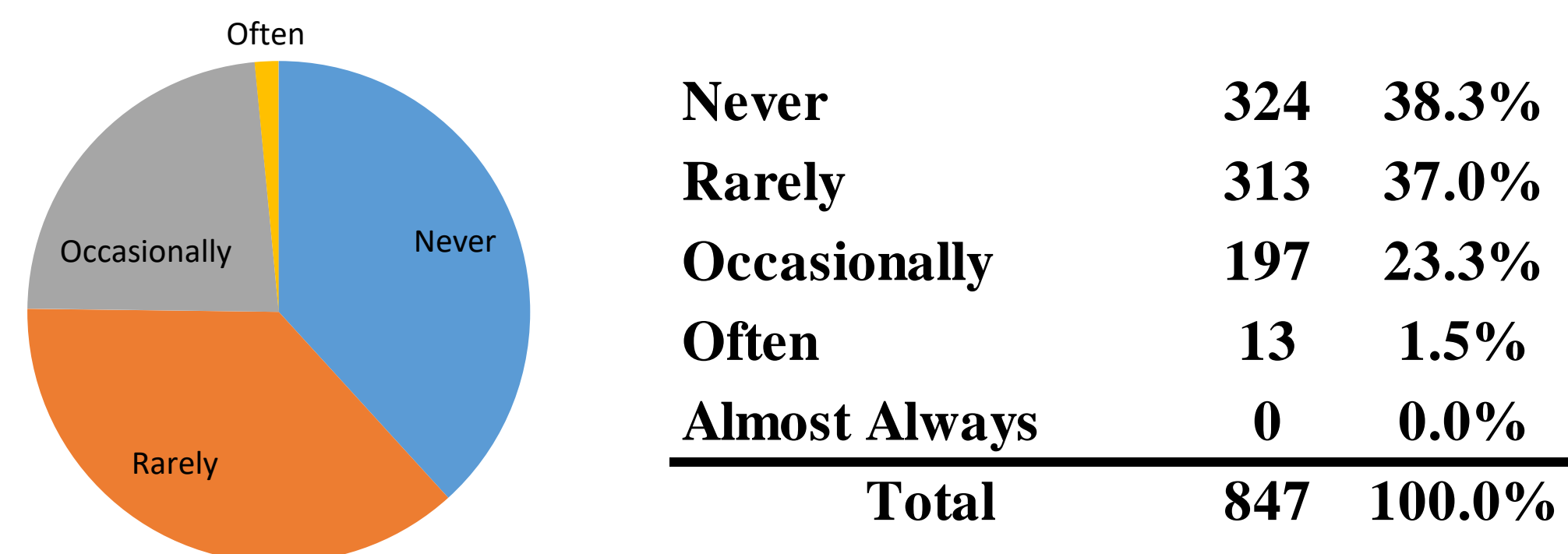


Figure 1. How frequently respondents to regulation review questionnaire targeted White Bass on the Mississippi River.
Note: Individuals responding "Never" were removed from subsequent figures.

Q8 - Based on your fishing experience, how would you rate White Bass fishing?

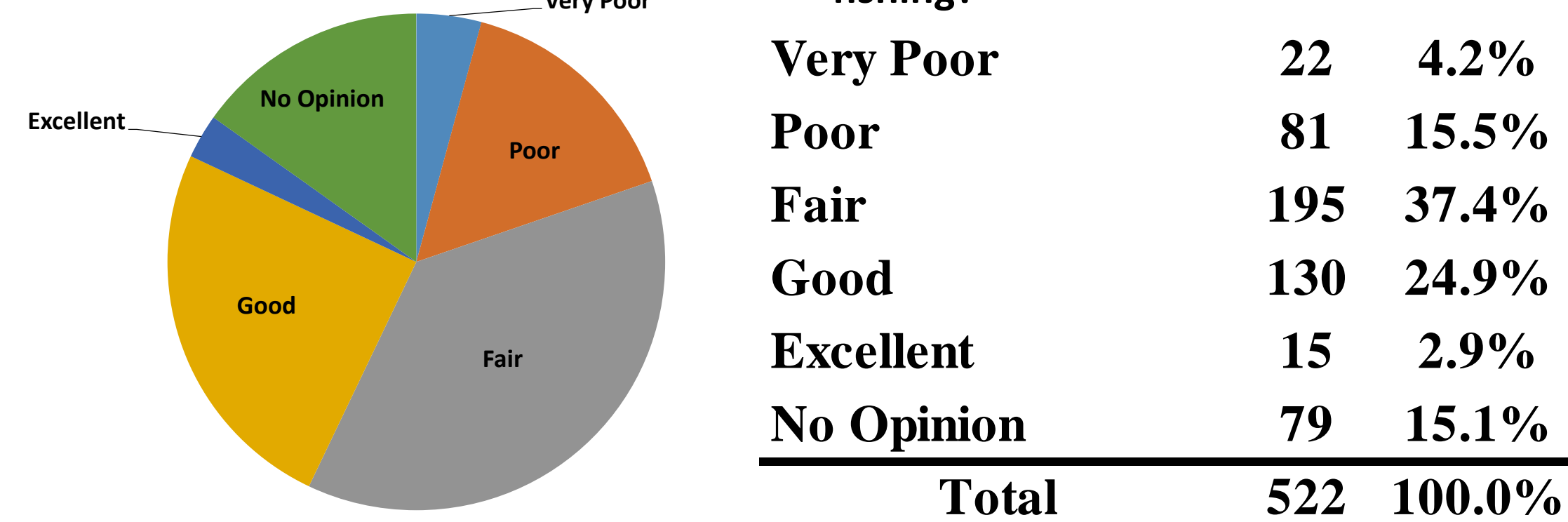


Figure 2. How respondents who targeted White Bass on the Mississippi River rated White Bass fishing.

Q9 - What aspect of White Bass fishing is most important to you?

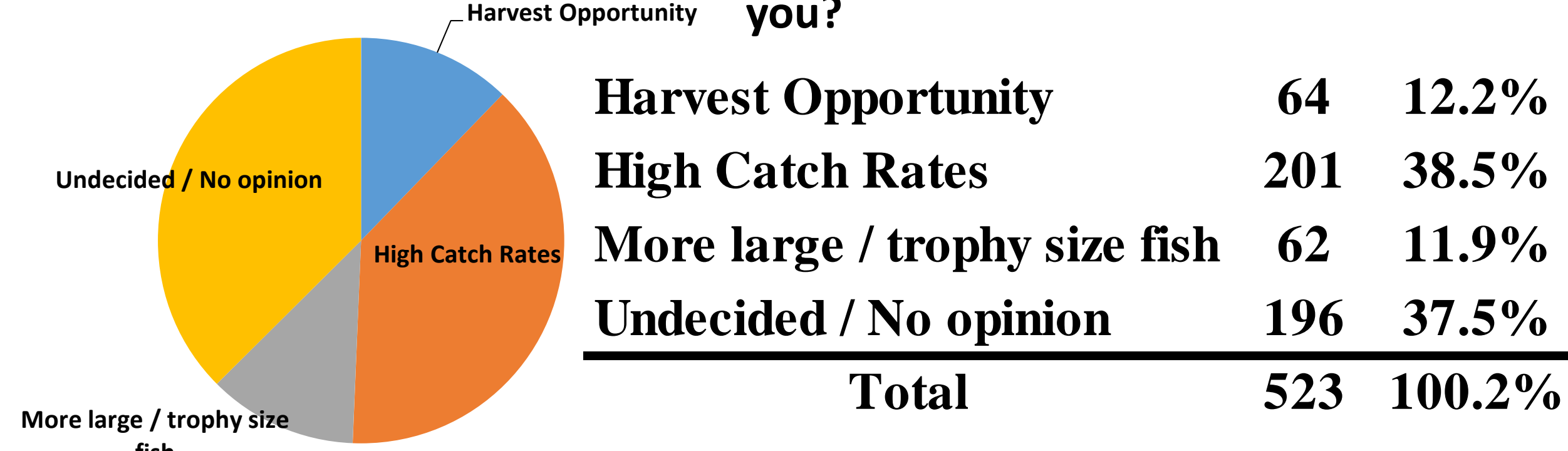


Figure 3. What aspect of White Bass fishing was most important to respondents who targeted White Bass on the Mississippi River.

Q10 - White Bass harvest under current regulations is (fill in blank)

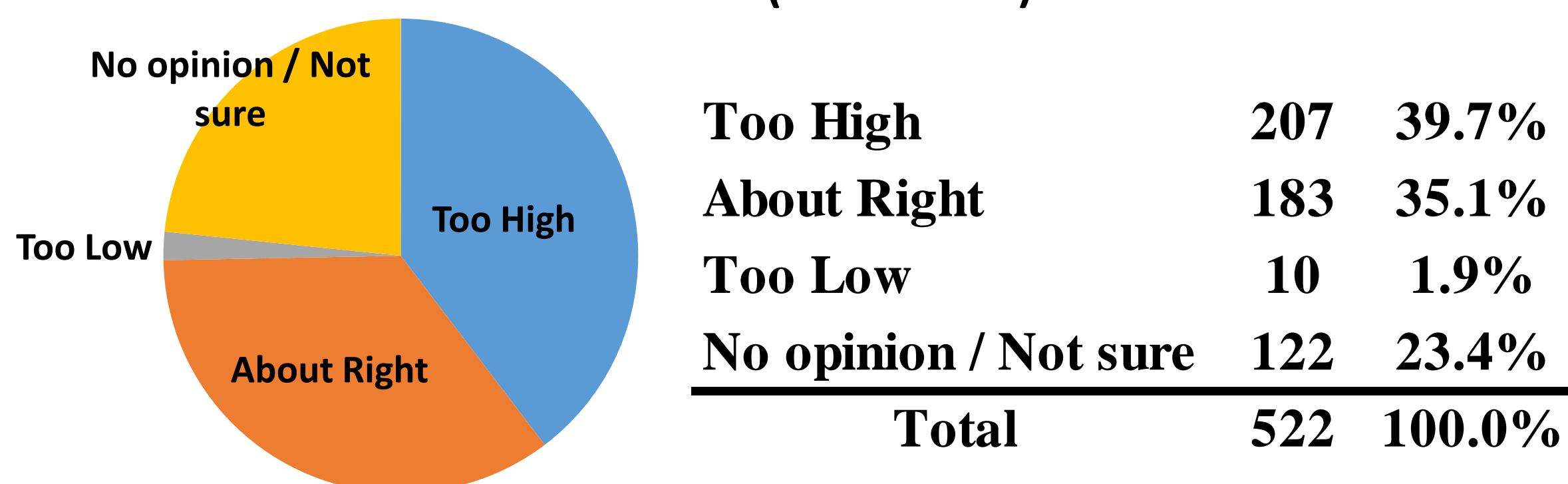


Figure 4. How respondents who targeted White Bass on the Mississippi River perceive current harvest levels.

Q11 - What is the lowest daily bag for White Bass that you would find acceptable?

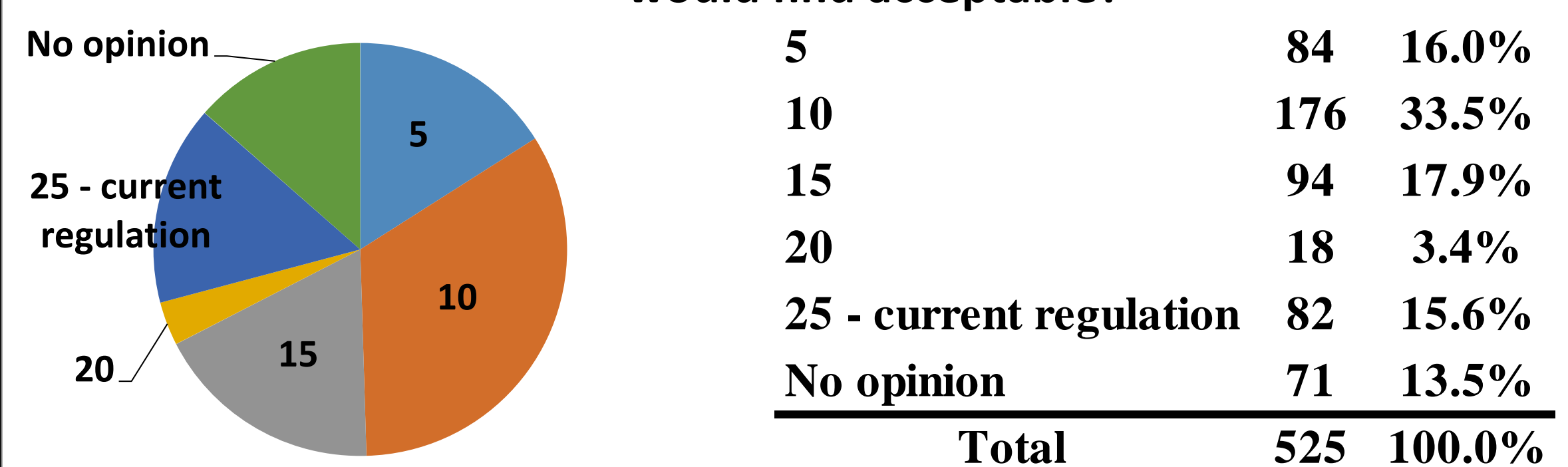


Figure 5. The lowest daily bag limit that would be acceptable to respondents who targeted White Bass on the Mississippi River.

Breakdown of Data Collected During Public Comment Period

- The ~850 responses to the border regulations questionnaire show White Bass to primarily be a target of opportunity. (Figure 1)
- Generally fishing was rated Fair – Good (Figure 2), but White Bass angling is often targeted at concentrations of fish during spawning runs etc. When even a small population can provide good success for angler.
- High catch rates were rated as more important anglers than harvest opportunity for White Bass (Figure 3)
- A significant number of respondents (~40%) rated current White Bass harvest as "Too High", but a group nearly as large (~35%) found it "About Right" (Figure 4).
- 78% of those expressing an opinion about bag limits said they would accept a daily bag limit of 15 or less White Bass
- 57% of those expressing an opinion about bag limits said they would accept a daily bag limit of 10 or less White Bass

Questions Addressed When Proposing Regulations

- Does it simplify regulations in any way?
 - Both proposals similar complexity to current regulation.
- Does it increase fishing/harvest opportunity?
 - Individually – No, but both proposals may allow for better distribution of what seems to be a declining stock across a greater number of anglers
- Does it protect or improve population in the long term?
 - Unlikely to improve stocks, but may mitigate the impacts of angler harvest on continued decline.
- Is it consistent with our biological information and/or "modern day" fish management goals?
 - Bag reduction is a consistent management tool to apply in response to the shift in our understanding of White Bass from short lived cyclical panfish to longer lived gamefish as documented in our biological background information.
- Is it more consistent with inland regulations of either state?
 - White Bass do not make up a significant portion of inland fisheries in either state.
- Is it supported by anglers? What do they want to see from this fishery in the next 10 to 20 years?
 - Yes. A majority of anglers expressing an opinion on lowered bag limits for White Bass support both options with a strong majority supporting the daily bag of 15 or less.
 - Anglers indicated they were looking for a high catch rate, opportunistically available fishery with lower emphasis on harvest. Both proposed regulations offer some opportunities to mitigate declining fish stocks and potentially distribute the harvest among more anglers

Current Regulation

Daily bag limit of 25

Proposed Regulation Options

1) Daily bag limit of 10