

DIRECT LOSSES ON THE NUMBER OF MISSISSIPPI COMMERCIAL LICENSES SOLD TO FISHING VESSELS

ABSTRACT

- This newsletter shows the number of fishing vessel licenses issued by the Mississippi Department of Marine Resources to commercial vessels fishing for crabs, shrimp, oysters, hook and line, and menhaden.
- Commercial licenses for fishing vessels are sold to residents and non-residents. The direct losses to the number of fishing licenses sold were measured by the Mean-Difference Model. Direct losses were observed in the total number of vessel licenses sold from 2019 to 2023 as compared to the benchmark means.
- Severe impacts have been observed on the shrimp and oyster fishing fleets which have not recovered to pre-disaster levels. The total direct losses in licenses sold averaged more than 400 vessels annually from 2019 to 2023, representing about 31 percent of the commercial fleet.
- Each license not sold implies that one fishing vessel is removed from commercial fishing. One captain and at least one crew are out of work and unable to provide the means to support their households.

KEYWORDS

- Commercial fishing licenses, Mississippi commercial fishing boats

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METHODS

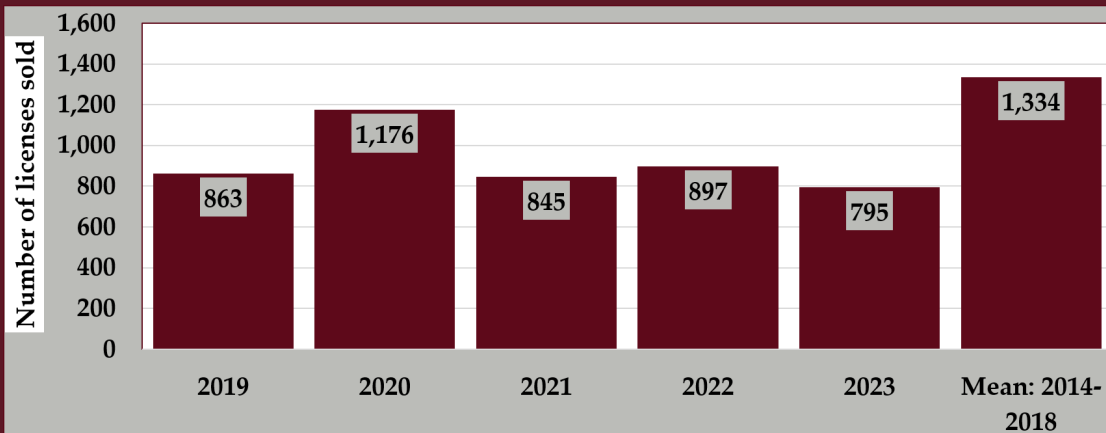
- This newsletter shows the number of fishing vessel licenses issued by the Mississippi Department of Marine Resources to commercial vessels fishing for crabs, shrimp, oysters, hook and line, and menhaden. Commercial licenses for fishing vessels are sold to residents and non-residents.
- The annual data on commercial fishing licenses were compiled from Requests for Disclosure of Public Records from 2014 to 2023 to the Mississippi Department of Marine Resources.
- The direct losses to the number of fishing licenses sold were measured by the Mean-Difference Model. Direct loss occurs when current values are below the benchmark values. The benchmark values are the means for the selected benchmark period. The benchmark period selected started from 2014 to 2018.
- The direct losses computed are from 2019 to 2023 and expressed in number and percent of licenses loss sold to crab, shrimp, oyster, and hook and line vessels.

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DIRECT LOSS ON TOTAL NUMBER OF COMMERCIAL FISHING VESSEL LICENSES SOLD

- The total number of licenses sold in the benchmark period and from 2019 to 2023 are shown in Figure 1.
- The benchmark mean from 2014 to 2018 was **1,334** licenses.
- The direct losses from 2019 to 2023 which are expressed in number and percent of licenses loss are shown in Fig. 2 and 3.
- The total number of licenses sold from 2019 to 2023 declined about **419** annually or **31 percent** of the benchmark mean.

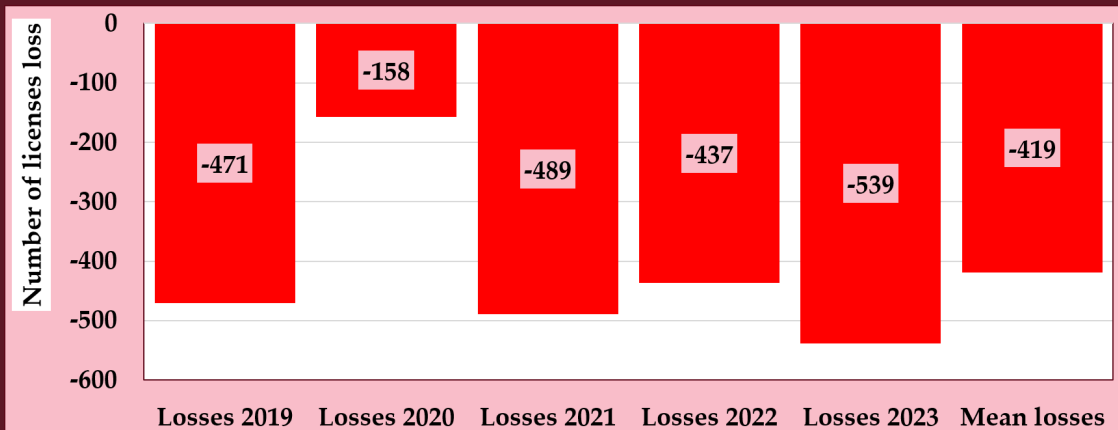
Figure 1. Total number of commercial licenses sold to shrimp, oyster, crab, hook and line, and menhaden vessels



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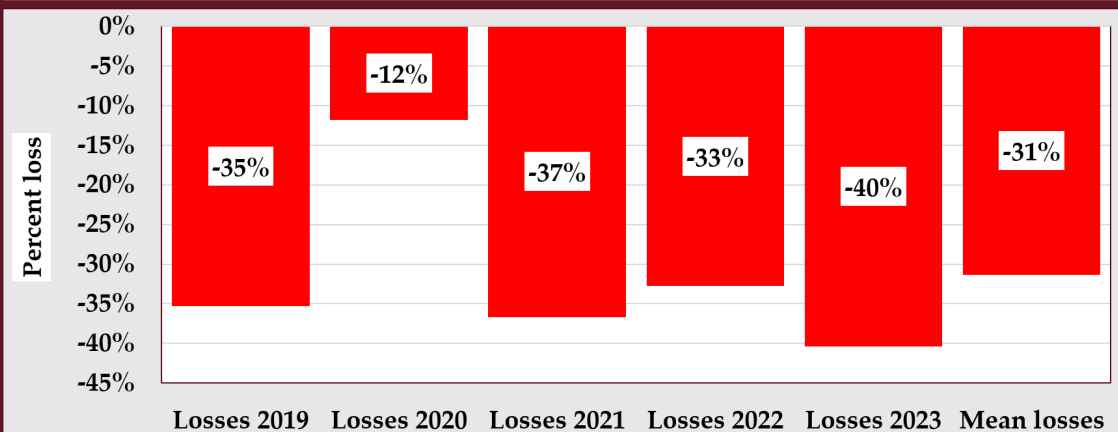
Figure 2. Direct loss on the number of commercial licenses sold to shrimp, oyster, crab, hook and line, and menhaden vessels



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Figure 3. Percent loss on number of commercial licenses sold to shrimp, oyster, crab, hook and line, and menhaden vessels



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DIRECT LOSS ON NUMBER OF COMMERCIAL CRAB VESSEL LICENSES SOLD

- The number of crab licenses sold in the benchmark period and from 2019 to 2023 are shown in Figure 4.
- The benchmark period from 2014 to 2018 had **184** crab licenses.
- The direct losses from 2019 to 2023, expressed in number and percentage of license loss, are shown in Fig. 5 and 6.
- Direct loss on crab licenses sold averaged **15** annually, or **8** percent of the benchmark mean.

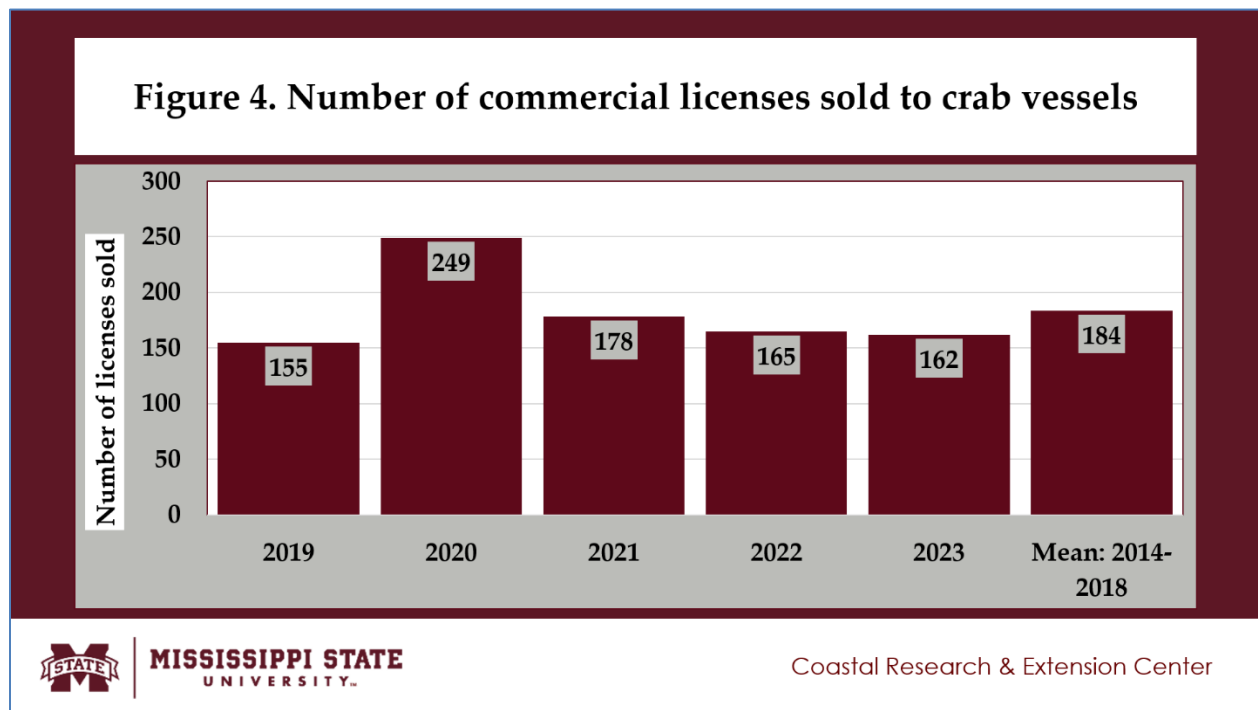
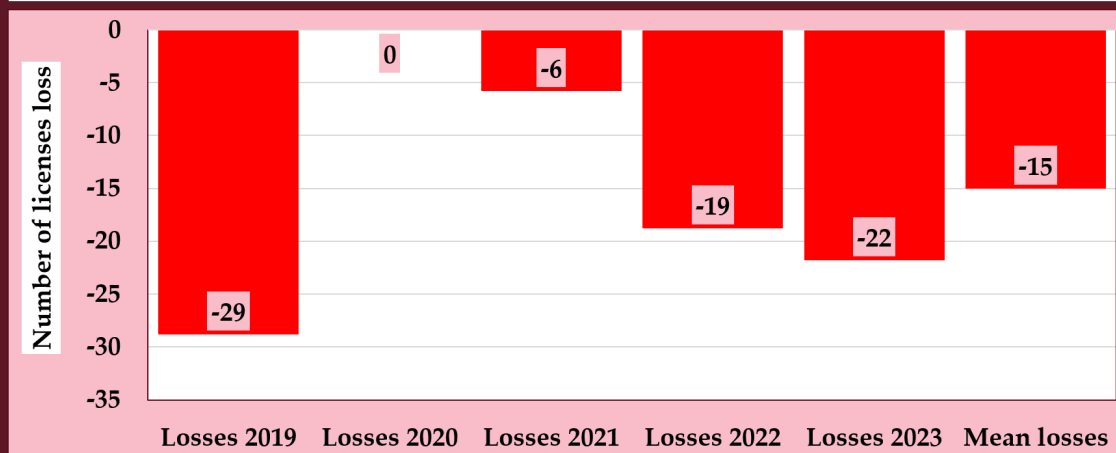


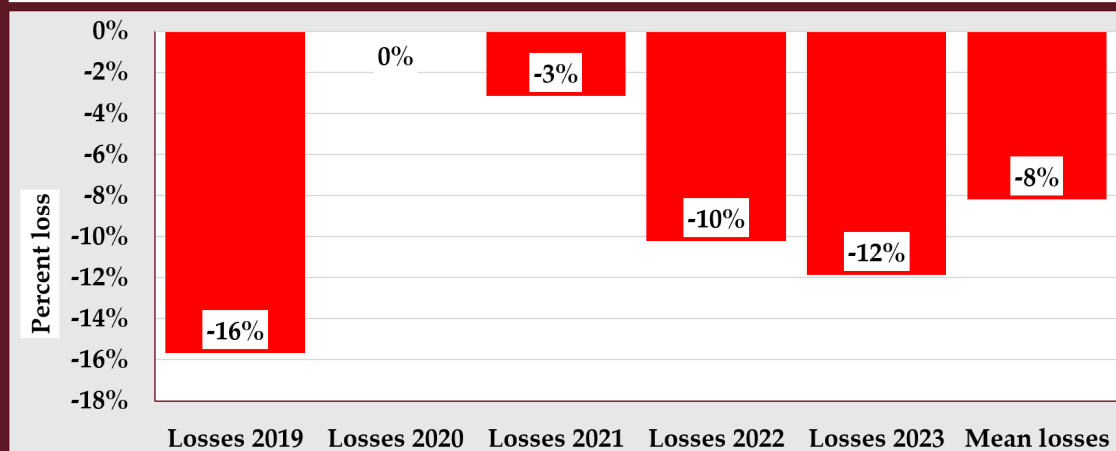
Figure 5. Direct loss on the number of commercial licenses sold to crab vessels



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Figure 6. Percent loss on number of commercial licenses sold to crab vessels



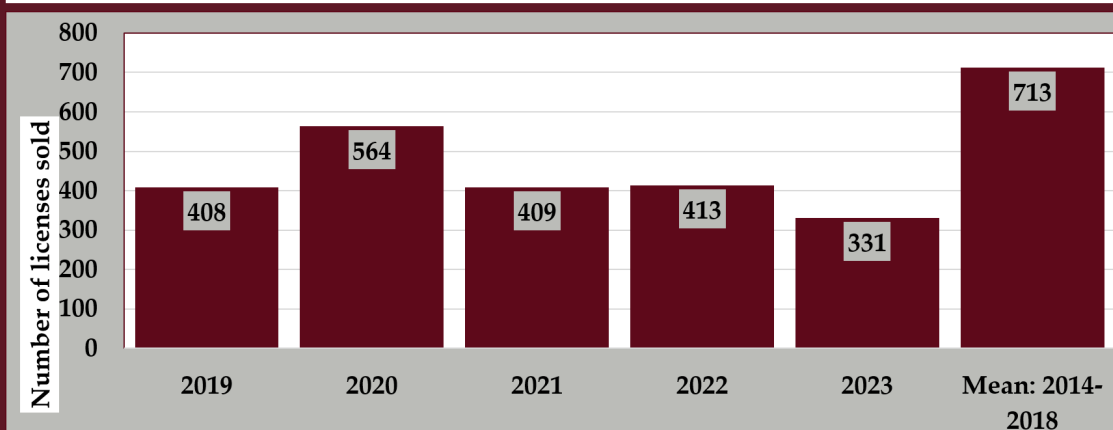
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DIRECT LOSS ON NUMBER OF COMMERCIAL SHRIMP VESSEL LICENSES SOLD

- The number of licenses sold in the benchmark period and from 2019 to 2023 are shown in Figure 7.
- The benchmark period from 2014 to 2018 had 713 shrimp licenses.
- The direct losses from 2019 to 2023, expressed in number and percentage of license loss, are shown in Fig. 8 and 9.
- Direct loss on crab licenses sold averaged 288 annually or 40 percent of the benchmark mean.

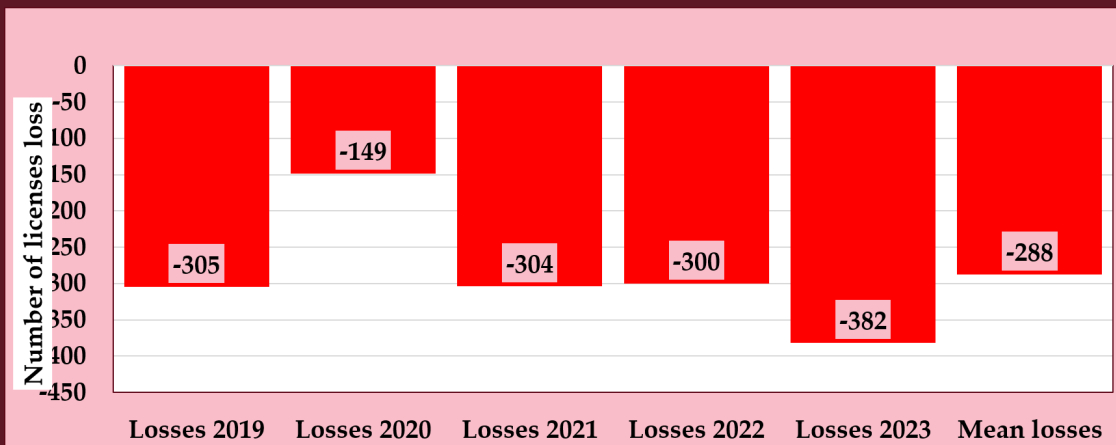
Figure 7. Number of commercial licenses sold to shrimp vessels



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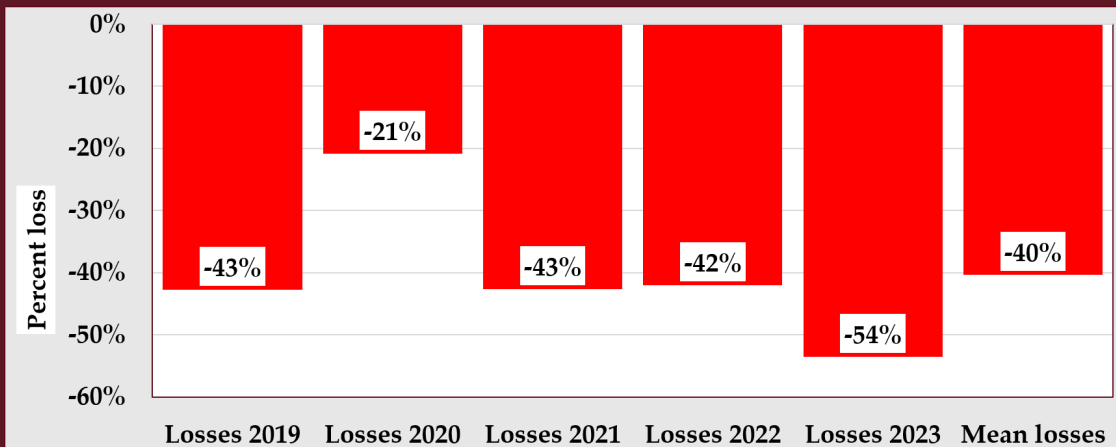
Figure 8. Direct loss on the number of commercial licenses sold to shrimp vessels



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Figure 9. Percent loss on number of commercial licenses sold to shrimp vessels



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DIRECT LOSS ON NUMBER OF COMMERCIAL OYSTER VESSEL LICENSES SOLD

- The number of licenses sold in the benchmark period and from 2019 to 2023 are shown in Figure 10.
- The benchmark period from 2014 to 2018 had 265 oyster licenses.
- The direct losses from 2019 to 2023, expressed in number and percentage of license loss, are shown in Fig. 11 and 12.
- Direct loss on crab licenses sold averaged 167 annually, or 63 percent of the benchmark mean.

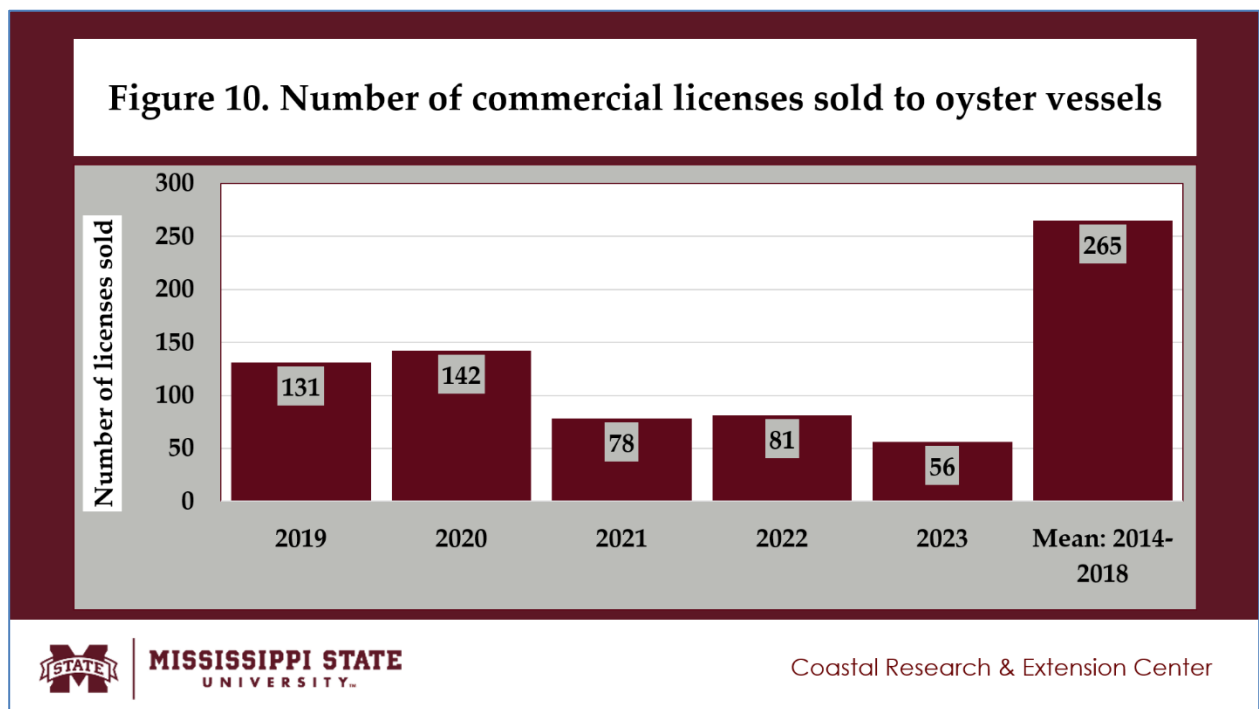
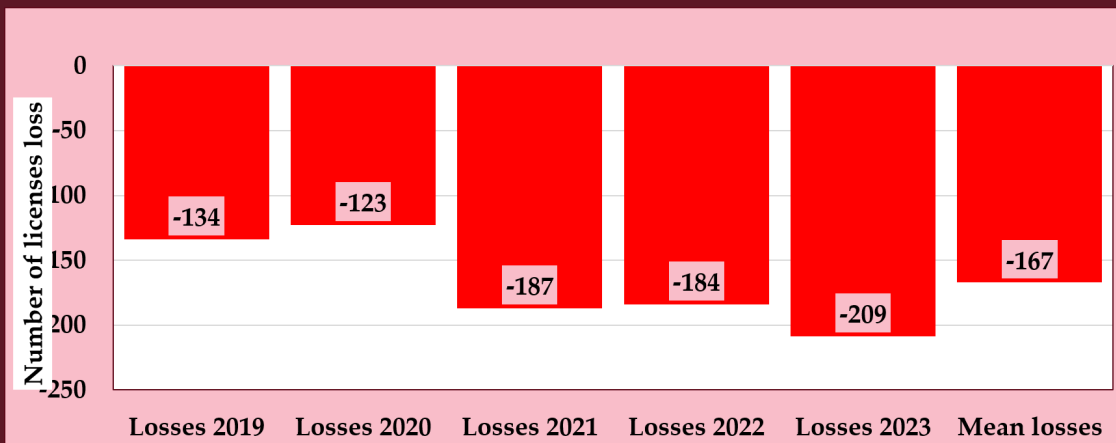


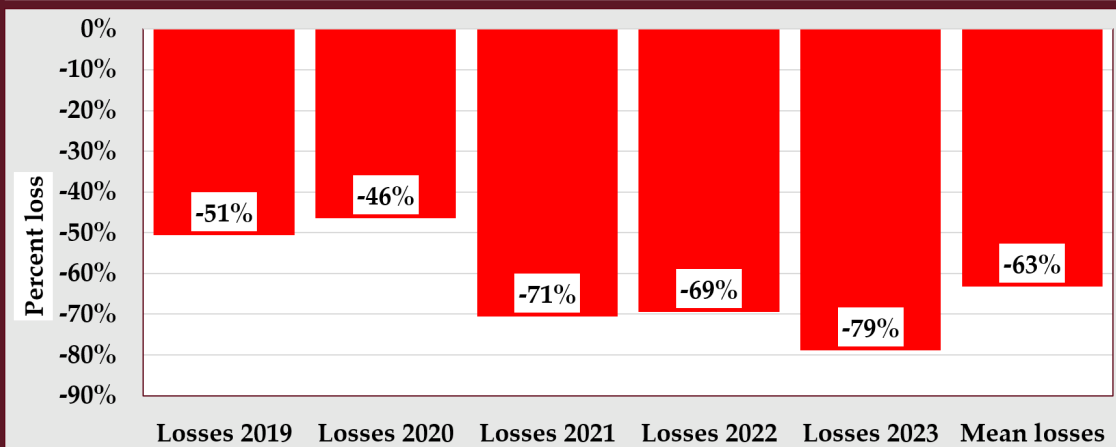
Figure 11. Direct loss on the number of commercial licenses sold to oyster vessels



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Figure 12. Percent loss on number of commercial licenses sold to oyster vessels



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DIRECT LOSS ON NUMBER OF HOOK AND LINE VESSEL LICENSES SOLD

- The number of licenses sold in the benchmark period and from 2019 to 2023 are shown in Figure 13.
- The benchmark period from 2014 to 2018 had **164** hook and line licenses.
- The direct losses from 2019 to 2023, expressed in number and percentage of license loss, are shown in Fig. 14 and 15.
- The direct loss on hook and line licenses sold in 2019 was **6** licenses or **3.5** percent of the benchmark mean.

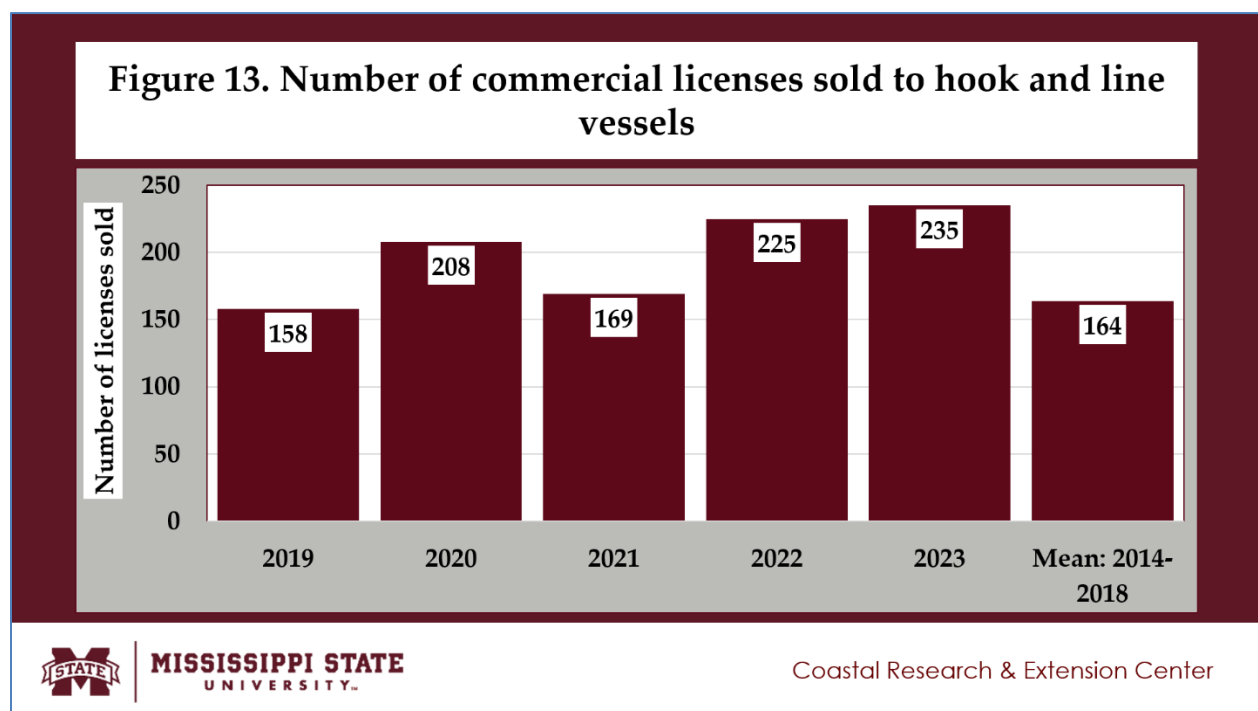
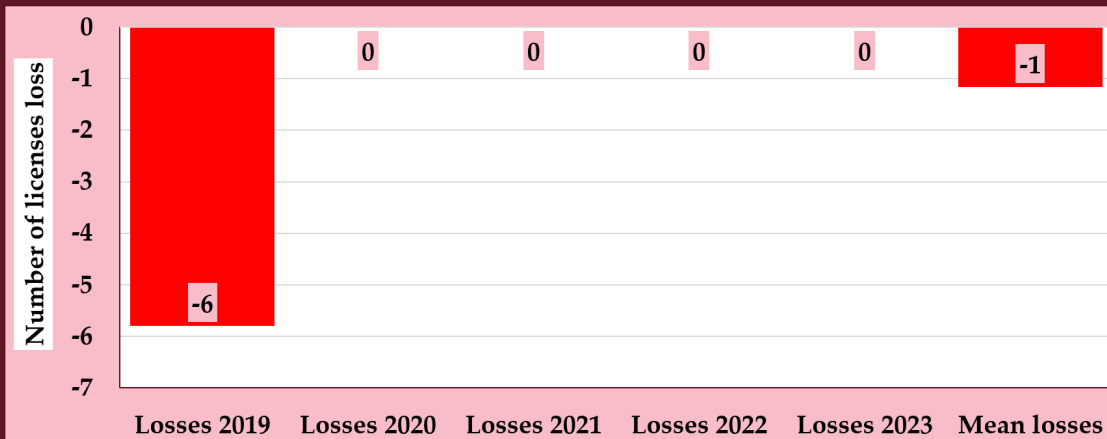


Figure 14. Direct loss on the number of commercial licenses sold to hook and line vessels



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Figure 15. Percent loss on number of commercial licenses sold to hook and line vessels

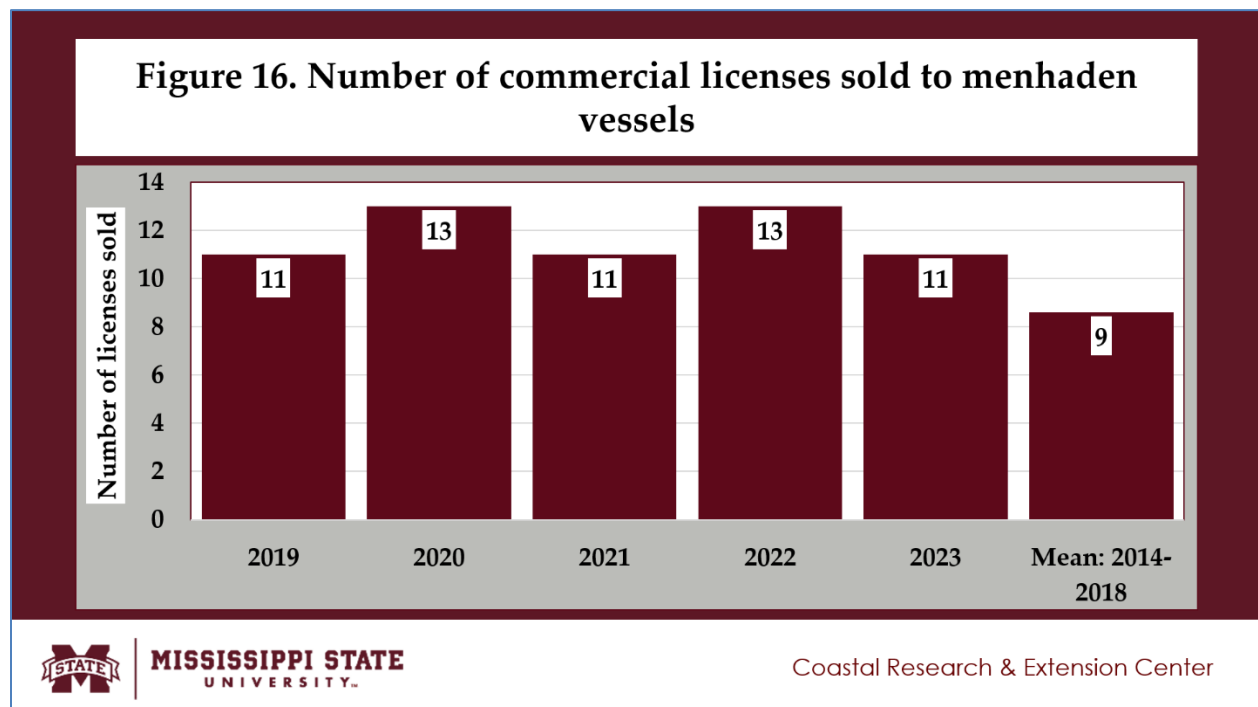


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NUMBER OF COMMERCIAL LICENSES SOLD TO MENHADEN VESSELS

- The number of licenses sold in the benchmark period and from 2019 to 2023 are shown in Figure 16.
- The benchmark period from 2014 to 2018 had 9 menhaden licenses.
- The number of licenses sold to menhaden vessels from 2019 to 2023 exceeds the benchmark mean.
- There were direct losses on menhaden licenses sold from 2019 to 2023.



SUMMARY, LIMITATIONS, AND IMPLICATIONS

- Direct losses were observed in the total number of vessel licenses sold from 2019 to 2023 as compared to the benchmark means.
- Direct losses were observed on the number of vessel licenses sold to crab, shrimp, oyster, and hook and line vessels.
- Severe impacts have been observed on the shrimp and oyster fishing fleets which have not recovered to pre-disaster levels.

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- The total direct losses in licenses sold averaged more than 400 vessels per year from 2019 to 2023, representing about 31 percent of the commercial fleet.
- Each license not sold implies that one fishing vessel is removed from commercial fishing. One captain and at least one crew are out of work and unable to provide the means to support their households.

REFERENCES

- Posadas, B. C. Direct Losses on Number of Mississippi Commercial Licenses Sold to Fishing Vessels. Horticulture and Marine Economics Outreach 2024-18. Mississippi State University, Coastal Research and Extension Center, Biloxi, Mississippi. (34 pp). <https://youtu.be/EeRILcr8r5Q>.
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