

Money Can't Buy Me Fish: Lessons from the Incentivized Harvest Program

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Glen Canyon Dam Adaptive Management Program Annual Reporting Meeting

April 2025

U. S. Department of Interior
U. S. Geological Survey

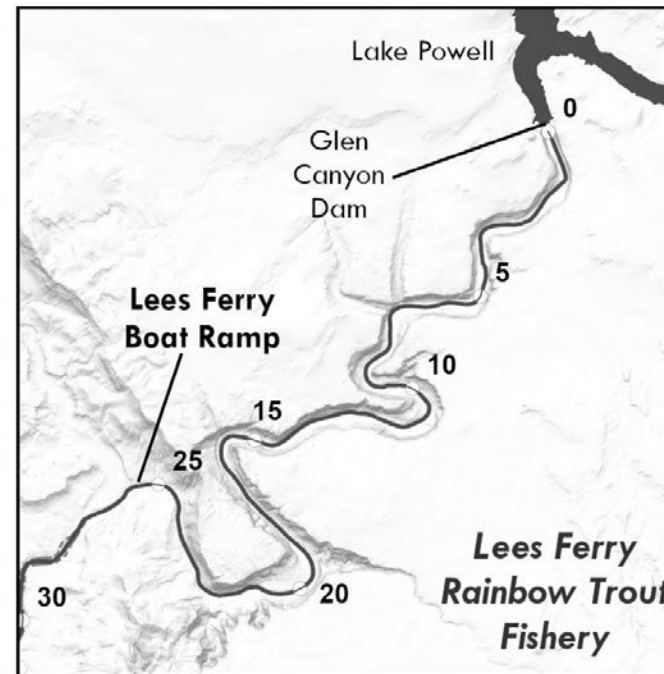
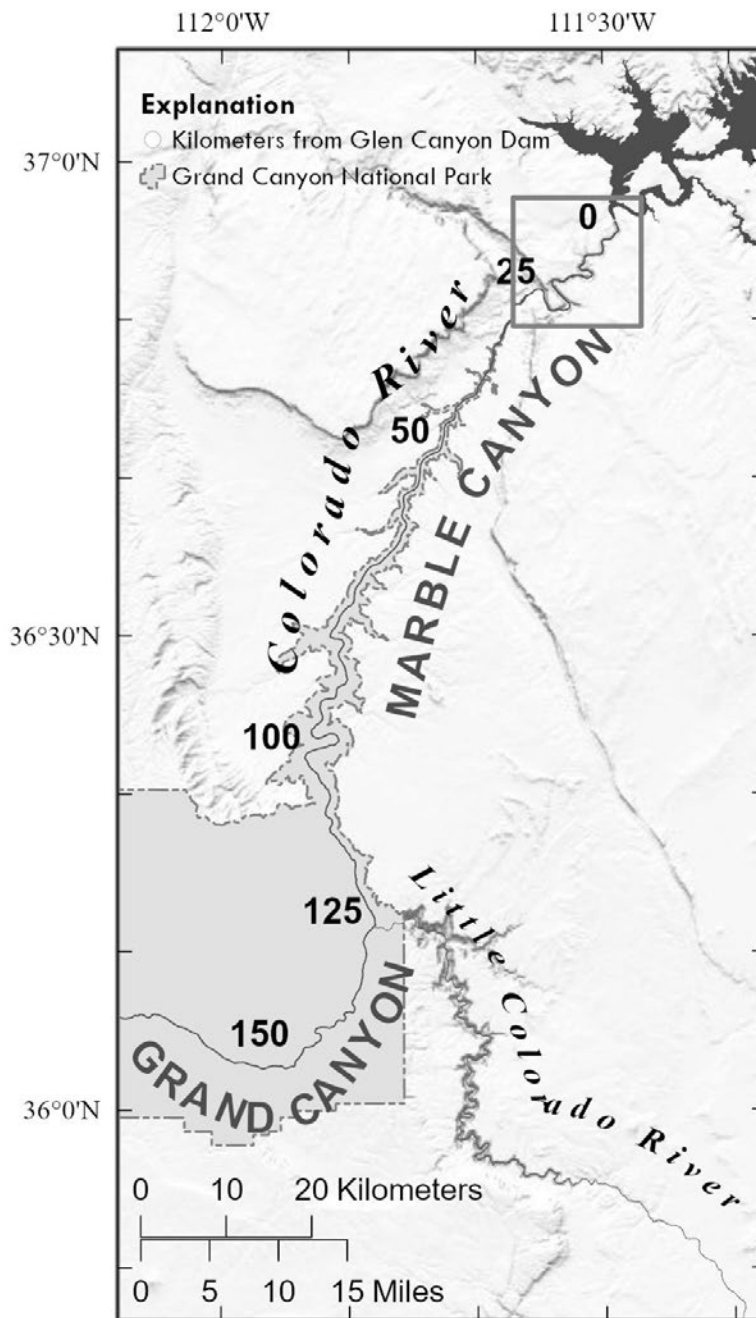
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Project J.2 - Brown trout incentivized harvest

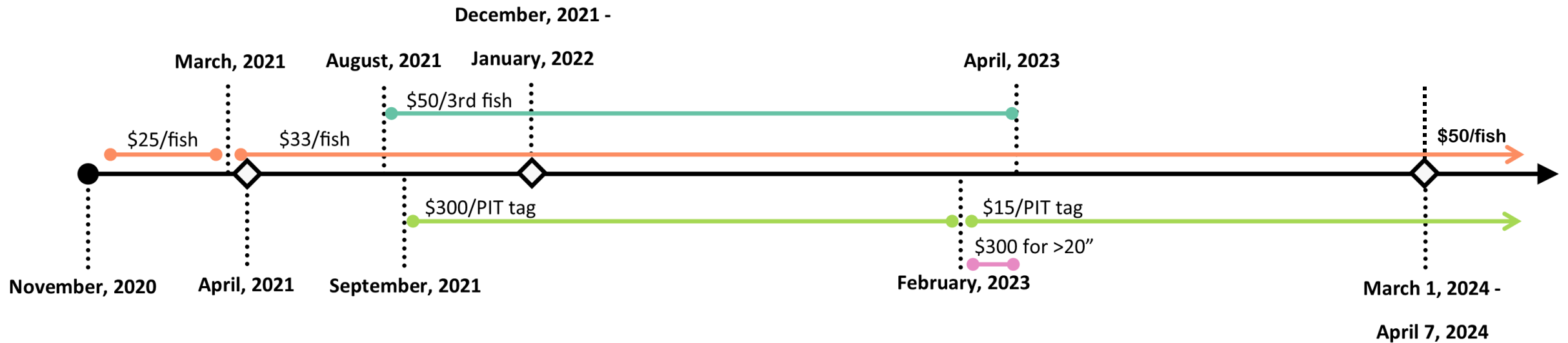
- Meet humpback chub recovery goals, including maintaining a self-sustaining population, spawning habitat, and aggregations in the Colorado River and its tributaries below the Glen Canyon Dam.
- Project objective was to conduct an analysis of angler behavior in response to the IHP and examine how the IHP influenced specific fishing behaviors that drive harvest.

Broader Implications of the IHP

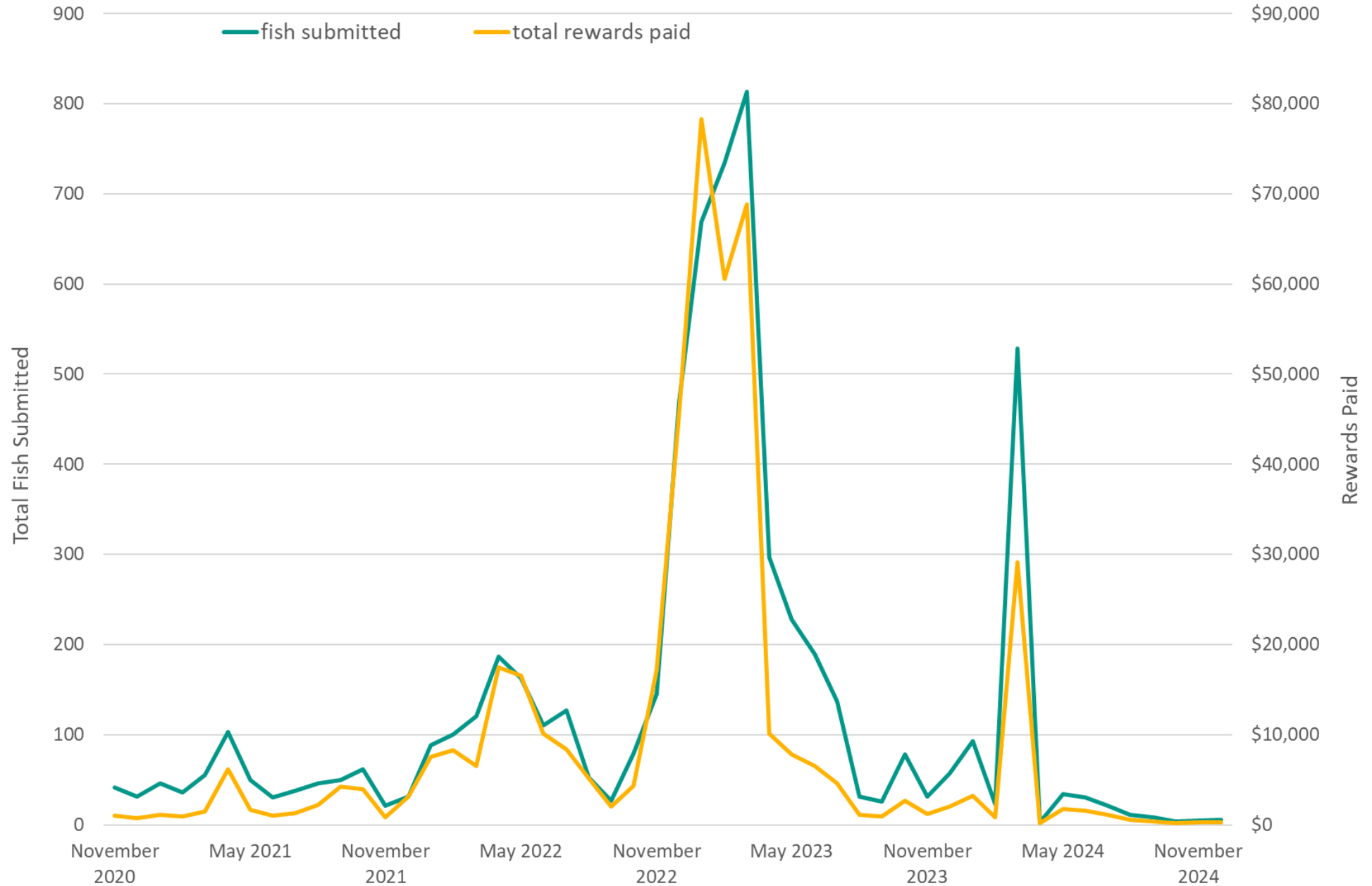
- Agencies must balance multiple objectives, including invasive species control, within increasingly recreation-driven environments.
- Resource managers typically use command-and-control methods (e.g., direct removal, chemical control), but incentive-based policies, particularly price instruments like "harvest incentives," are gaining in popularity.



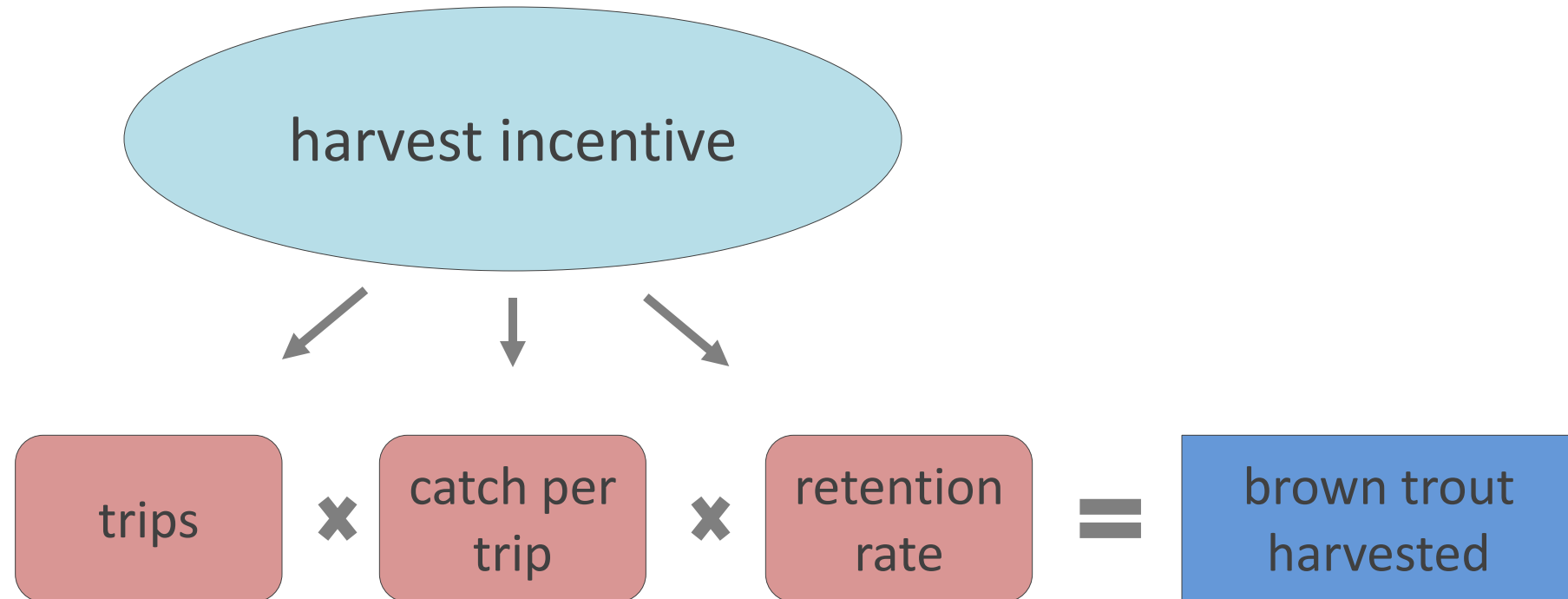
Incentivized Harvest Timeline



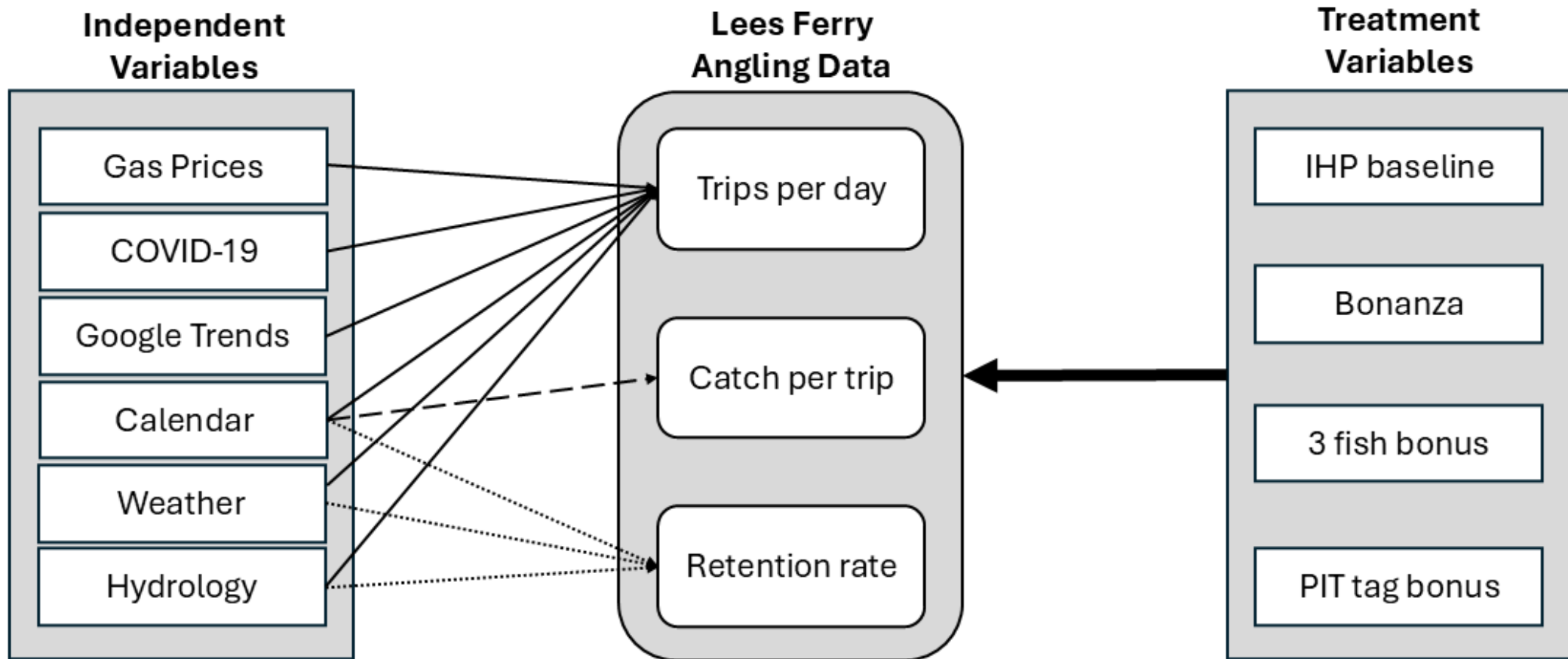
◇ Diamonds on the timeline represent bonanza events.

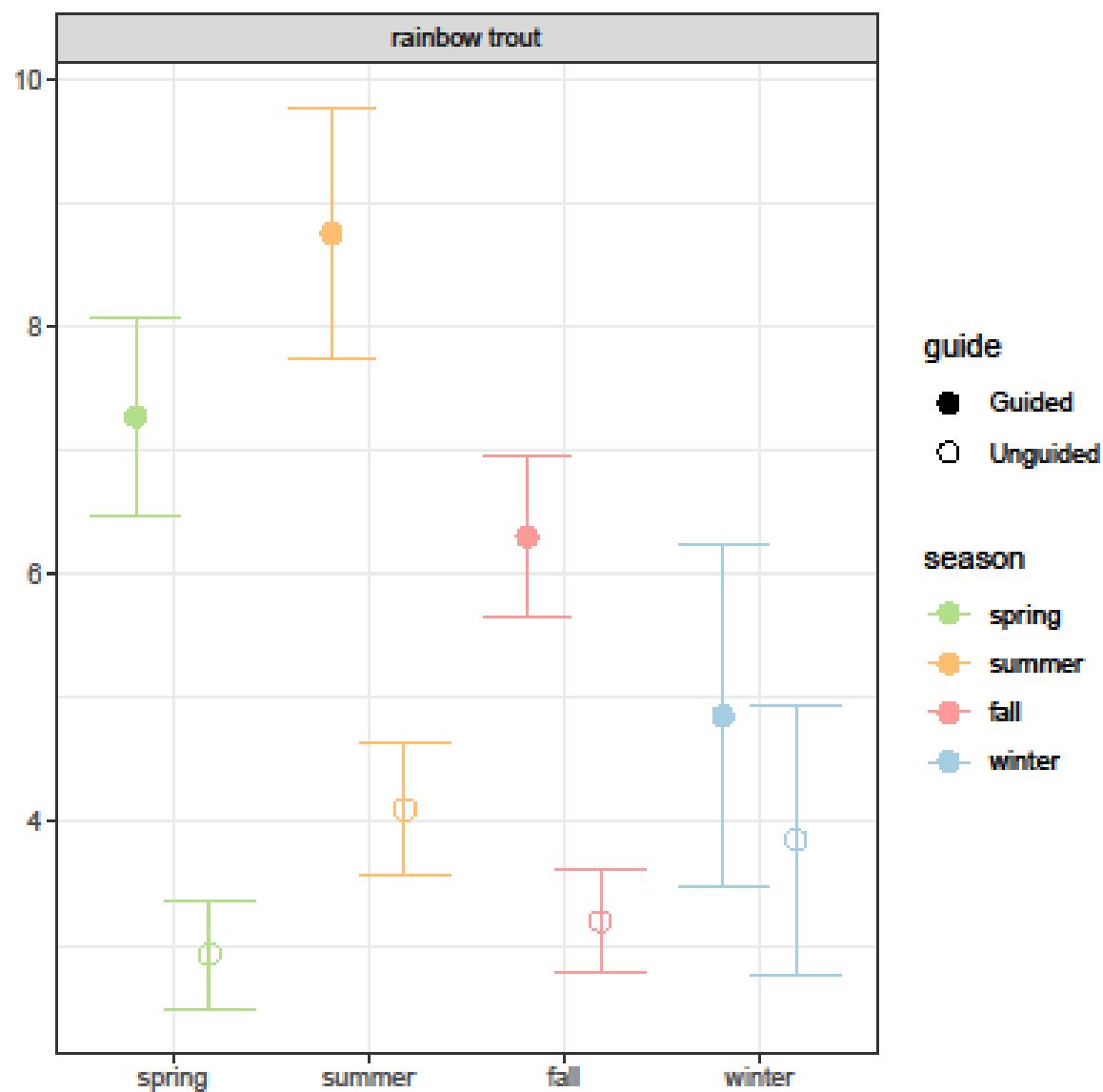
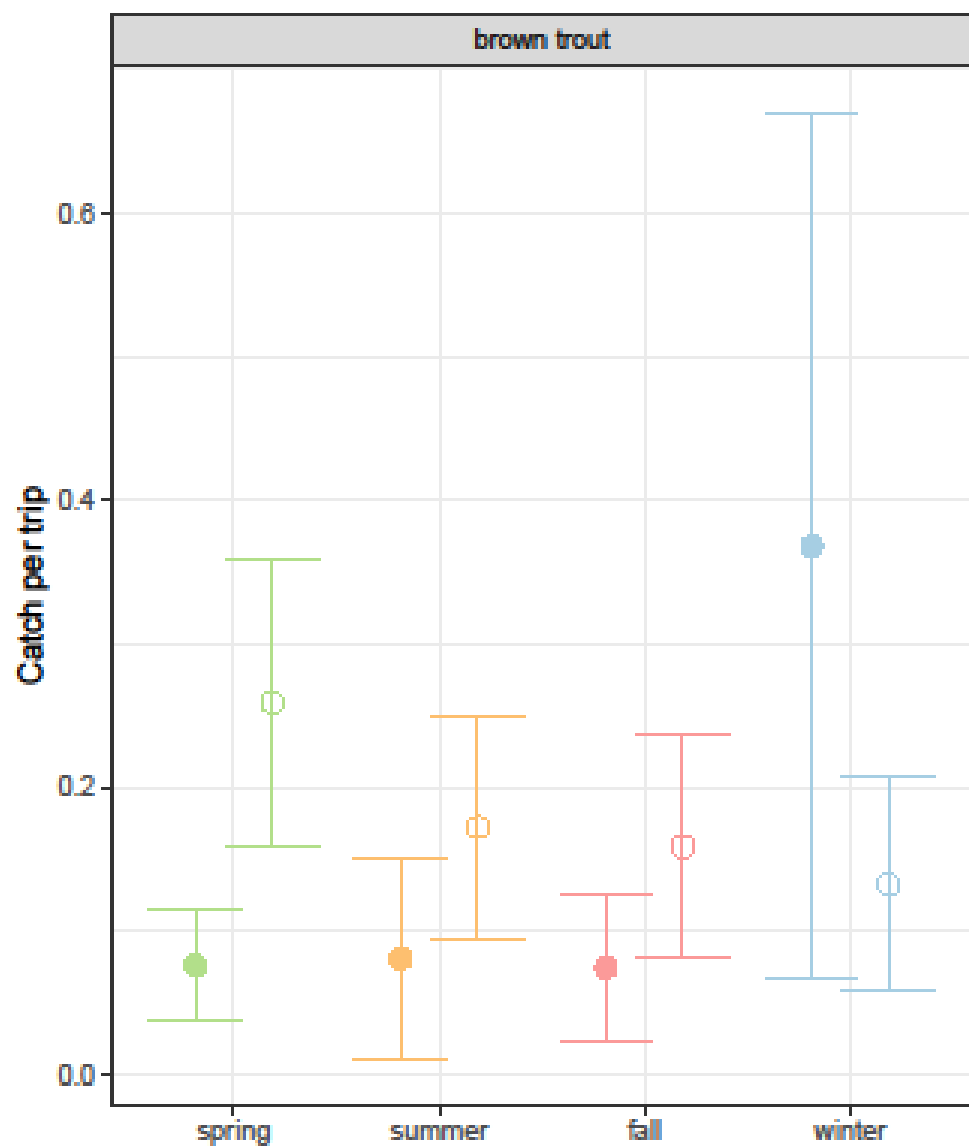


Total brown trout harvest



Data Summary Diagram





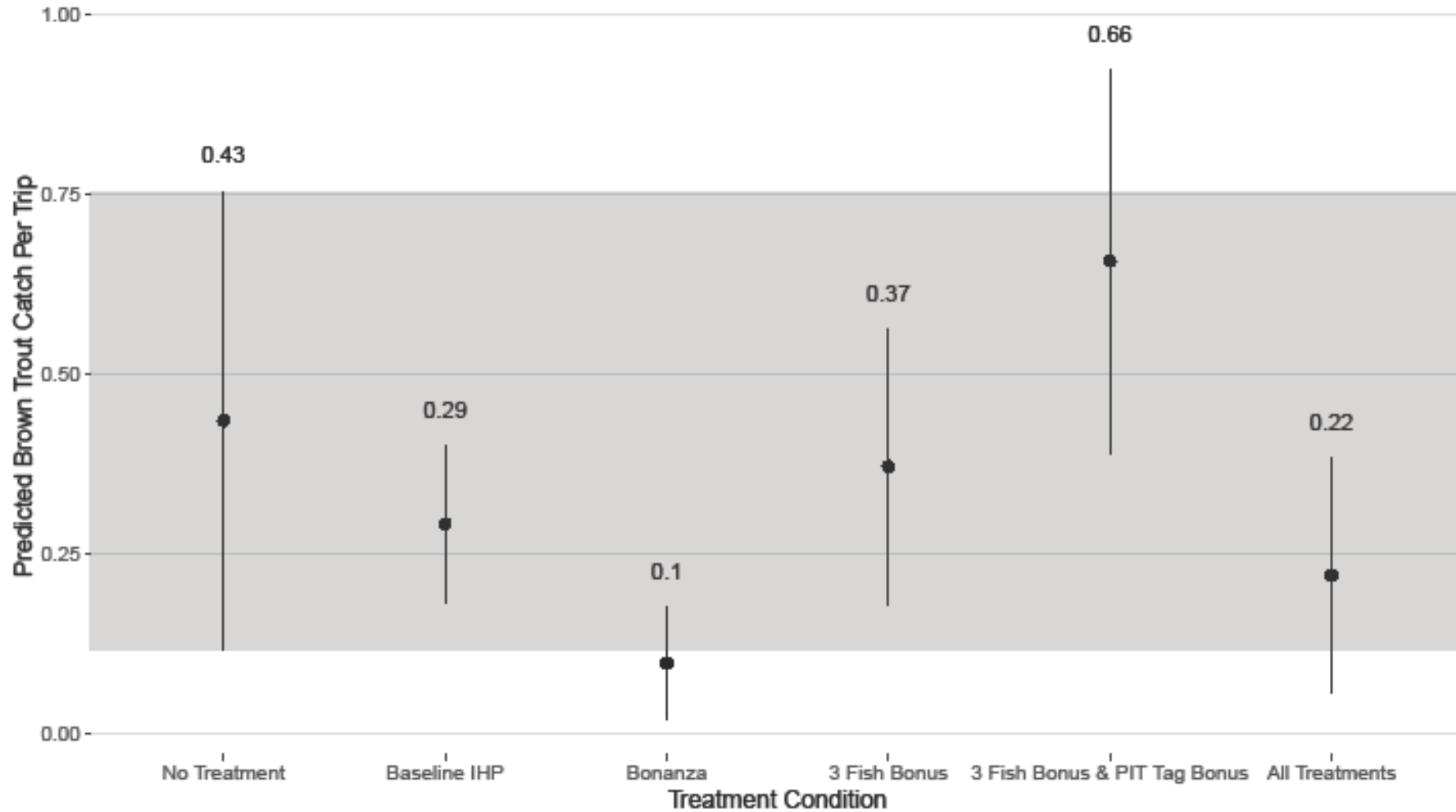
Trips per Day

- Modeling indicates that the BTIH program had no effect on daily trip-taking to Lees Ferry.
- In the first year of the program the average participating boating angler caught 0.16 brown trout per trip.
 - Expected payout ~\$10



<https://leesferryonthefly.com/>

Brown Trout Catch



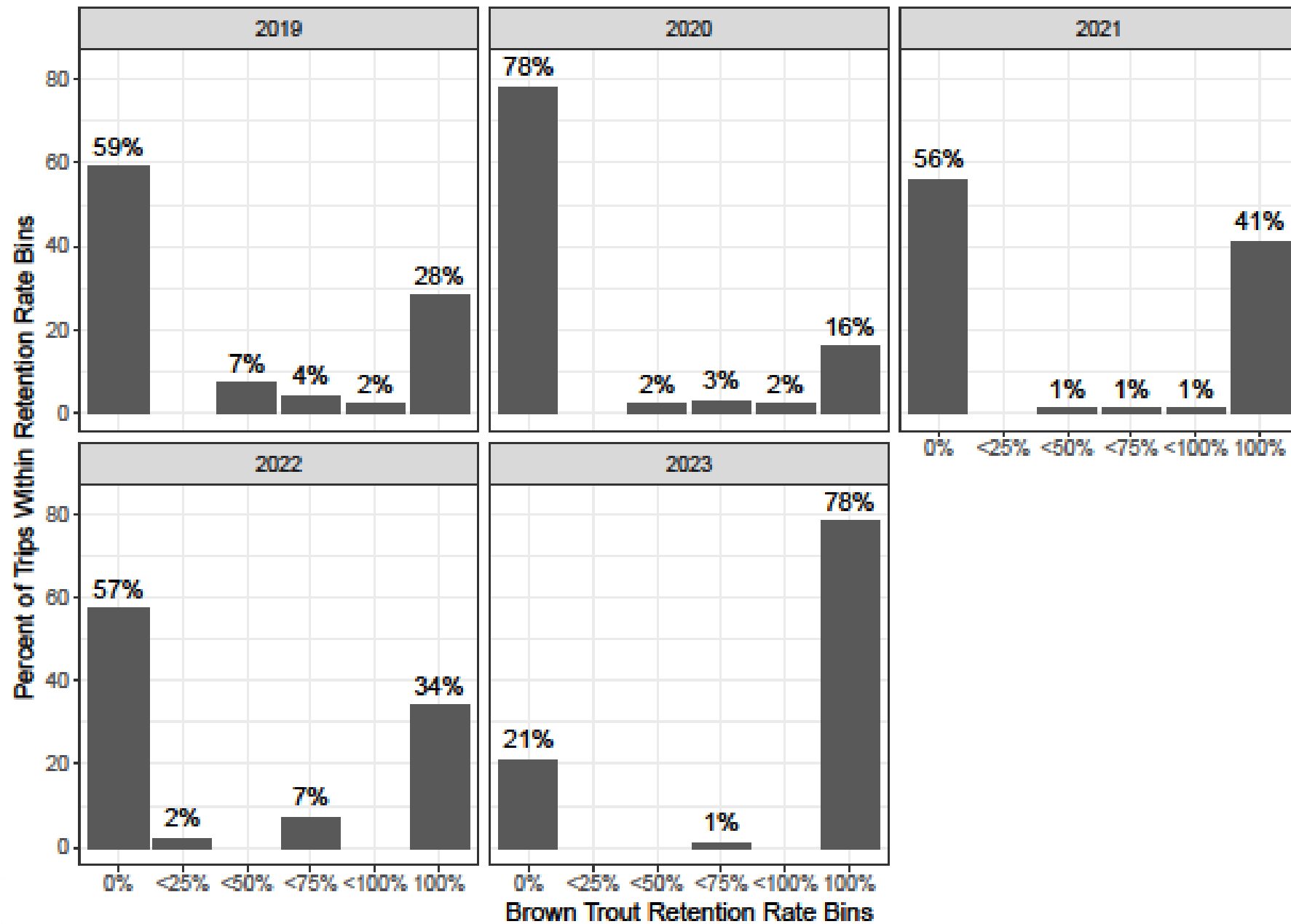
Catch per Trip

Brown Trout

- Program decreases catch
- Bonanzas decrease catch
- Large incentives increase catch

Rainbow Trout

- Program decreases catch
- Bonanzas increase catch



Retention Rates

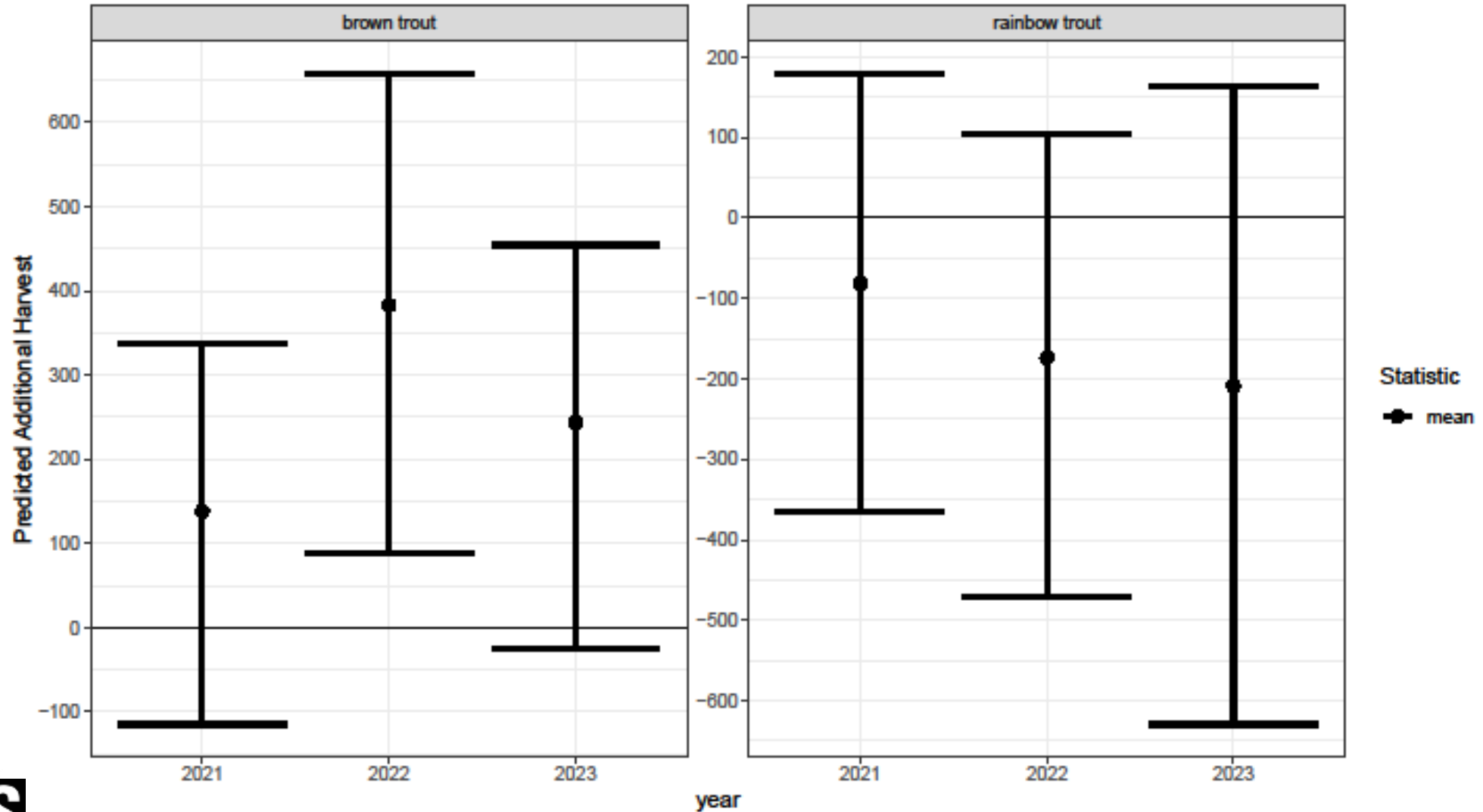
Brown Trout

- Program increases retention rates

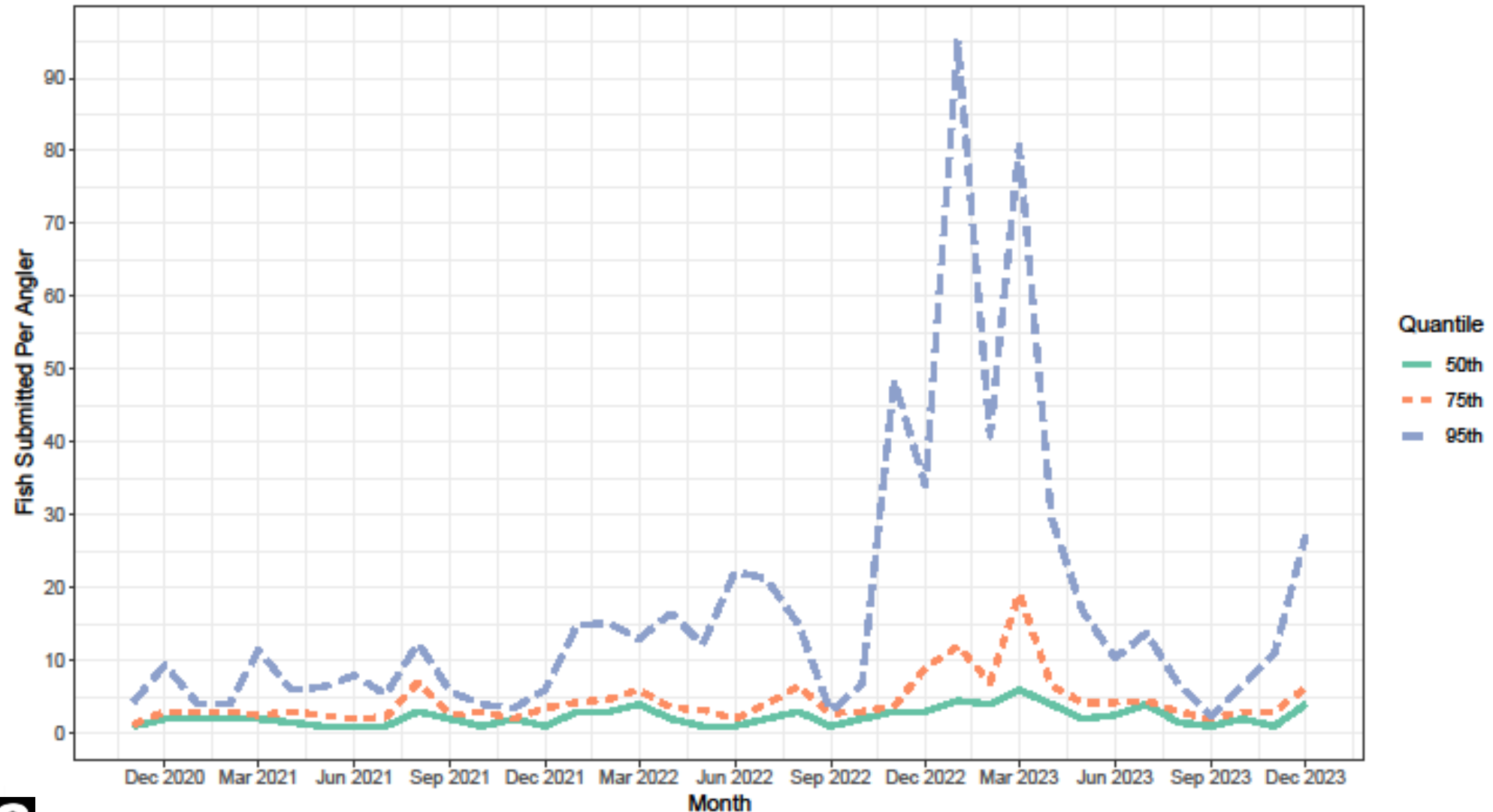
Rainbow Trout

- Program decreases retention rates
- Bonanzas increase retention rates

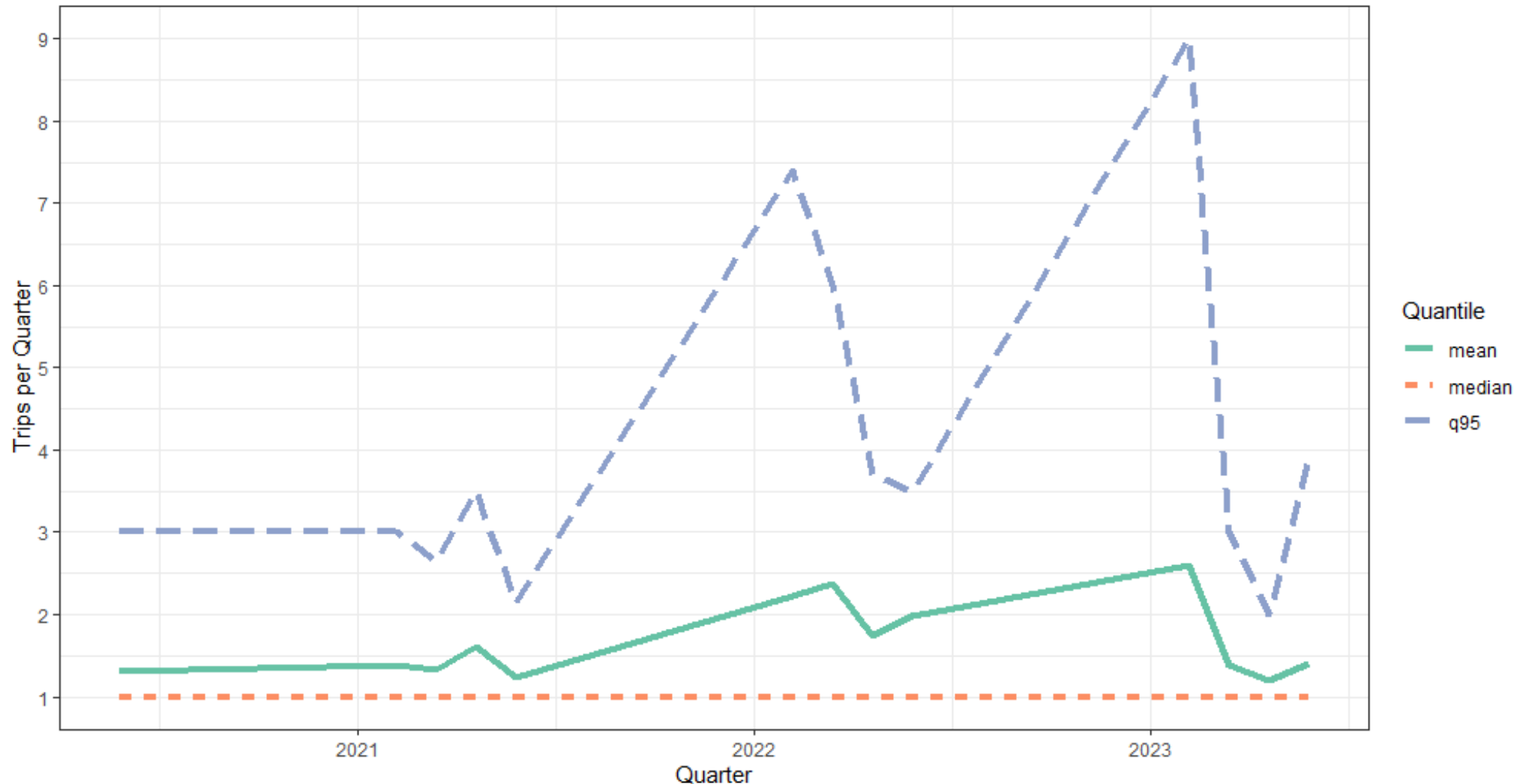
Estimated Additional Harvest

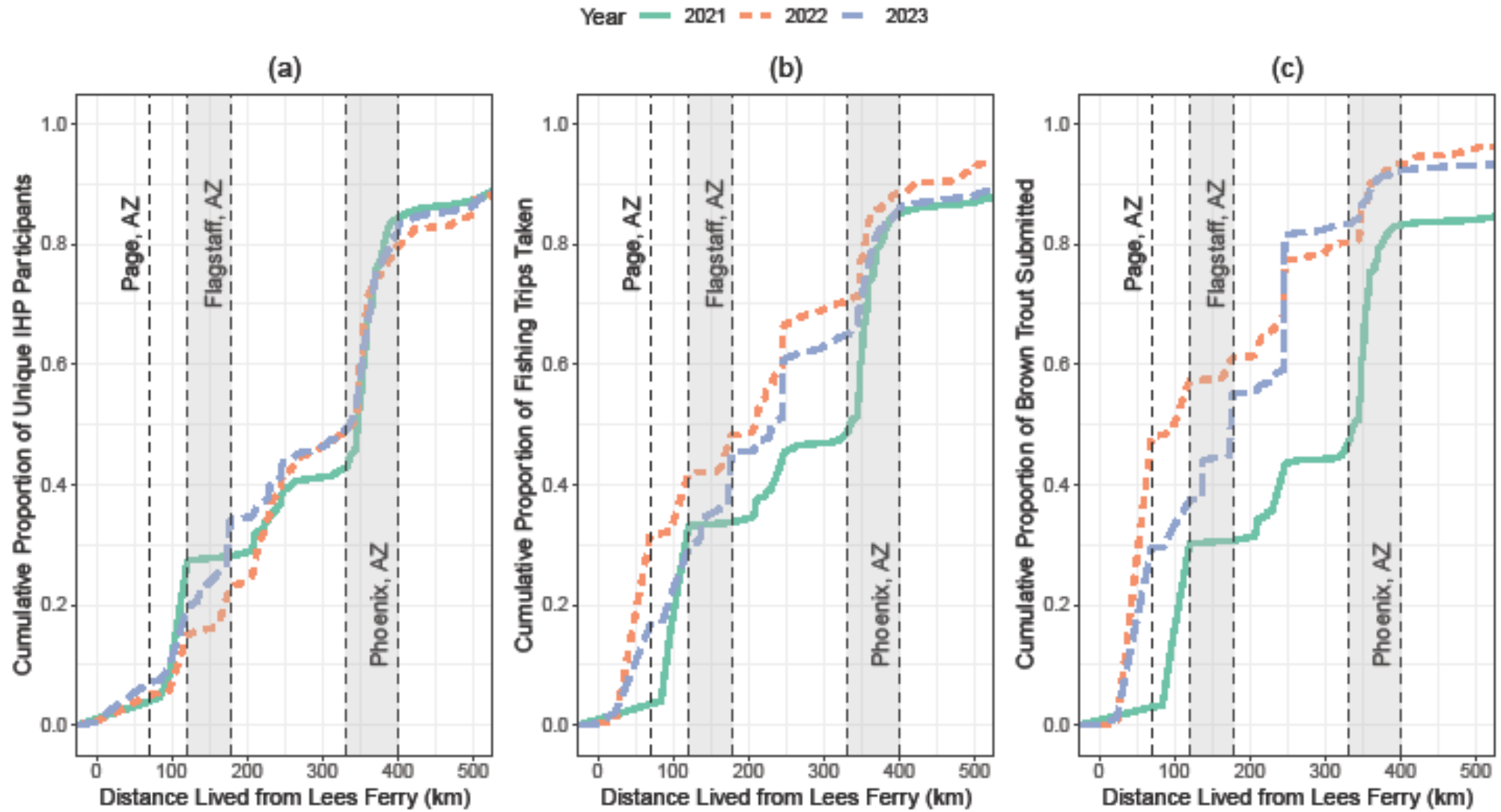


Monthly Distribution of BNT Harvest per Angler



Distribution of Participation Rates per Angler





Conclusions

- A small group of local anglers became “professional” anglers, significantly increasing brown trout removals.
- The program successfully increased harvest but was not cost-effective compared to alternative management strategies.
- Understanding angler behavior helps refine future IHPs or other citizen-based program designs.

