

Submitted by the Alaska Department of Fish and Game  
January 15, 2018

### Summary of department efforts to increase the use of deepwater release mechanisms (DRM)

2011: Developed a **Statewide Rockfish Conservation page** and posted on the department website. Encouraged best practices to reduce unintentional catch of rockfish and reduce release mortality. These included:

- Be prepared to use a release device. Have a deepwater release mechanism ready and available before you start fishing.
- Land and release rockfish quickly.
- Release rockfish at depth of capture.
- Do not vent/fizz any fish - puncturing of abdominal wall or protruding stomach of fish to remove excess gas from swim bladder. This increases risk of infection and there is no evidence it improves the survival of released fish.



2012:

- Worked with NOAA to develop and distribute **Angler's Guide to the Rockfishes of Alaska**, 3<sup>rd</sup> edition.\*

2013:

- Developed, produced and distributed statewide handout **Guidelines for deepwater release and rockfish conservation** at offices for public distribution.
- Included best practices for deepwater release and rockfish conservation on the rockfish ID page in the **2013 Southeast and Southcentral Sport Fish Regulation Summaries**.\*
- Southeast Alaska area management biologists attended local spring charter vessel meetings and presented a PowerPoint explaining new regulations for charter anglers requiring use of DRM, how to comply, and showed a release of rockfish at depth video.
- Displayed examples of deepwater release mechanisms for the public at each Southeast Alaska area office.
- Distributed **Angler's Guide to Rockfish of Alaska\*** and **Guidelines for deepwater release and rockfish conservation** along with a letter to Southeast charter operators reminding them of the new regulation requiring charter anglers to release at depth, with each saltwater logbook issued.

2014:

- Updated 2014 Southeast and Southcentral Sport Fish Regulation Summaries\* to include a full page on rockfish conservation and deepwater release with graphics.

| Rockfish Conservation - Change the Way You Fish  |  | Do your part for rockfish conservation by following these guidelines to avoid catching rockfish or to minimize your harvest:  |
|--|--|---|
| <p>Rockfish caught in deep water often sustain injuries — referred to as barotrauma — caused by rapid decompression and expansion of gases in the swim bladder. Fish that are released with inflated swim bladders cannot reabsorb and will die. Because of high release mortality, intentional catch-and-release fishing is greatly discouraged, particularly in depths of 60 feet or greater. Alaska anglers can best prevent wasteful rockfish mortality by avoiding waters where unwanted catches are likely. When rockfish are caught incidentally despite avoidance efforts, proper deepwater release techniques can reduce mortality. A recent ADF&amp;G study found that survival of yelloweye released at depth was far higher than survival of fish released at the surface.</p> |  | <ol style="list-style-type: none"> <li>1. Avoid fishing in rocky areas with boulders, ridges, and pinnacles. Avoid fishing the steep sides of reefs and rock piles. Lingcod are typically found on top of the reefs while halibut are usually on flat bottoms adjacent to the reefs.</li> <li>2. Move to a different area if you are catching rockfish unintentionally.</li> <li>3. When targeting halibut or lingcod, keep your jig or bait well off the bottom.</li> <li>4. Target other species first. This will allow you to retain your incidental rockfish catch as part of your limit and minimize the number of rockfish released.</li> <li>5. If targeting rockfish, focus your harvest on pelagic species such as black rockfish. These species are more abundant and can sustain slightly higher levels of harvest.</li> <li>6. When fishing with bait, use a single circle hook.</li> </ol> |
| Deepwater Release — How to Let Go  |  |   |
| <p>A variety of deepwater release devices, or recompression tools, are available commercially or you can make your own using a simple lead head jig. The device should weigh at least 3 pounds to submerge a large rockfish.</p> <ul style="list-style-type: none"> <li>• Make sure the device is assembled and ready to use before you start fishing. The fish is much more likely to survive if you minimize time at the surface. Dedicate a rod and reel or downrigger for the release device so it can be used immediately.</li> </ul>   |  | <ul style="list-style-type: none"> <li>• Reel the fish up quickly. Reeling slowly does not prevent inflation of the swim bladder.</li> <li>• Send the fish back down as quickly as possible. Return it to the bottom or depth of capture to ensure complete recompression.</li> <li>• Do not vent or “fix” rockfish. Venting or “fixing” involves puncturing the stomach protruding from the fish’s mouth, or puncturing the fish’s body to let air out of the swim bladder. This can lead to infection in the body cavity and eventual death.</li> </ul>   |
|  |  | <ul style="list-style-type: none"> <li>• Rockfish caught in less than 60 feet of water are usually able to submerge on their own. If the fish appears to be inflated or otherwise unable to swim, use a deepwater release device to return the fish to the depth of capture.</li> </ul> <p>For more information on rockfish and deepwater release devices, look under Fishing Information on the Sport Fishing page at: <a href="http://www.adfg.alaska.gov/">www.adfg.alaska.gov/</a></p>  |
|  |  |   |

2017:

- Drafted a **Gulf of Alaska outreach plan** with a specific goal to increase public awareness of deepwater release methods and to increase the overall usage of DRMs by private and charter anglers. Implemented plan elements as follows:
  - Posted twice on department Facebook page **statewide messages** on rockfish conservation and deepwater release. One post about barotrauma reached nearly 10,000 people and was “liked” 38 times with 32 “shares”. The other post about the difference between pelagic and nonpelagic rockfish reached 7,000 people and was “liked” 32 times with 11 “shares”.
  - Purchased 80 SeaQualizer DRMs (60 for Southcentral, 20 for Southeast) for distribution to participants at fishing events and to charter operators.
  - Created a **30-second commercial** spot run by KTUU (Anchorage) from June 7 to July 7 on rockfish conservation and deepwater release. It was estimated that over 120,000 people saw this ad at least twice during this time.
  - Hosted a public event in Sitka on June 24 providing instruction on how to make and use DRMs to increase nonpelagic rockfish survival when released. One hundred eleven members of public attended, staff gave away several DRMs as door prizes.

2018:

- Continue to implement Gulf of Alaska outreach plan as follows:
  - Work with Pacific States Marine Fisheries Commission (PSMFC) to develop double-sided **rockfish identification sheet** (laminated). PSMFC received \$50,000 grant from NOAA for Alaska, and provided the department with 1000 Shelton Fish Descender and 300 SeaQualizer devices. These will be given to private anglers and charter operators along with the other packet materials.
  - Send **preseason e-mail** to Gulf of Alaska charter operators via GovDelivery encouraging use of DRMs and offering to provide DRMs with commitment from charter operator to use and report use at end of season.
  - Continue posting statewide **Facebook messages** beginning in May to encourage rockfish conservation and use of DRMs.
  - Create a statewide **“how-to” video** on construction of a homemade DRM, release in May.
  - Produce and post **signage** detailing deepwater release methods (designed in 2017) at ports and harbors in Southeast and Southcentral Alaska in spring 2018.
  - Anchorage staff purchased 35 lead head jigs to make DRMs for public distribution to anglers who commit to using DRM. **“DRM information packet”** includes DRM, brochure on how to use DRM, Ray Troll “Rockfish Conservation” sticker. Professionally printing additional copies of the deepwater release brochure to create more packets.
  - Host **seminars** at April 5-8 Great Alaska Sportsman Show in Anchorage with **seminars** focusing on deepwater release.

**\* 2017 Southeast Sport Fish Regulation Summary and Angler’s Guide to Rockfish of Alaska have been provided to the board.**

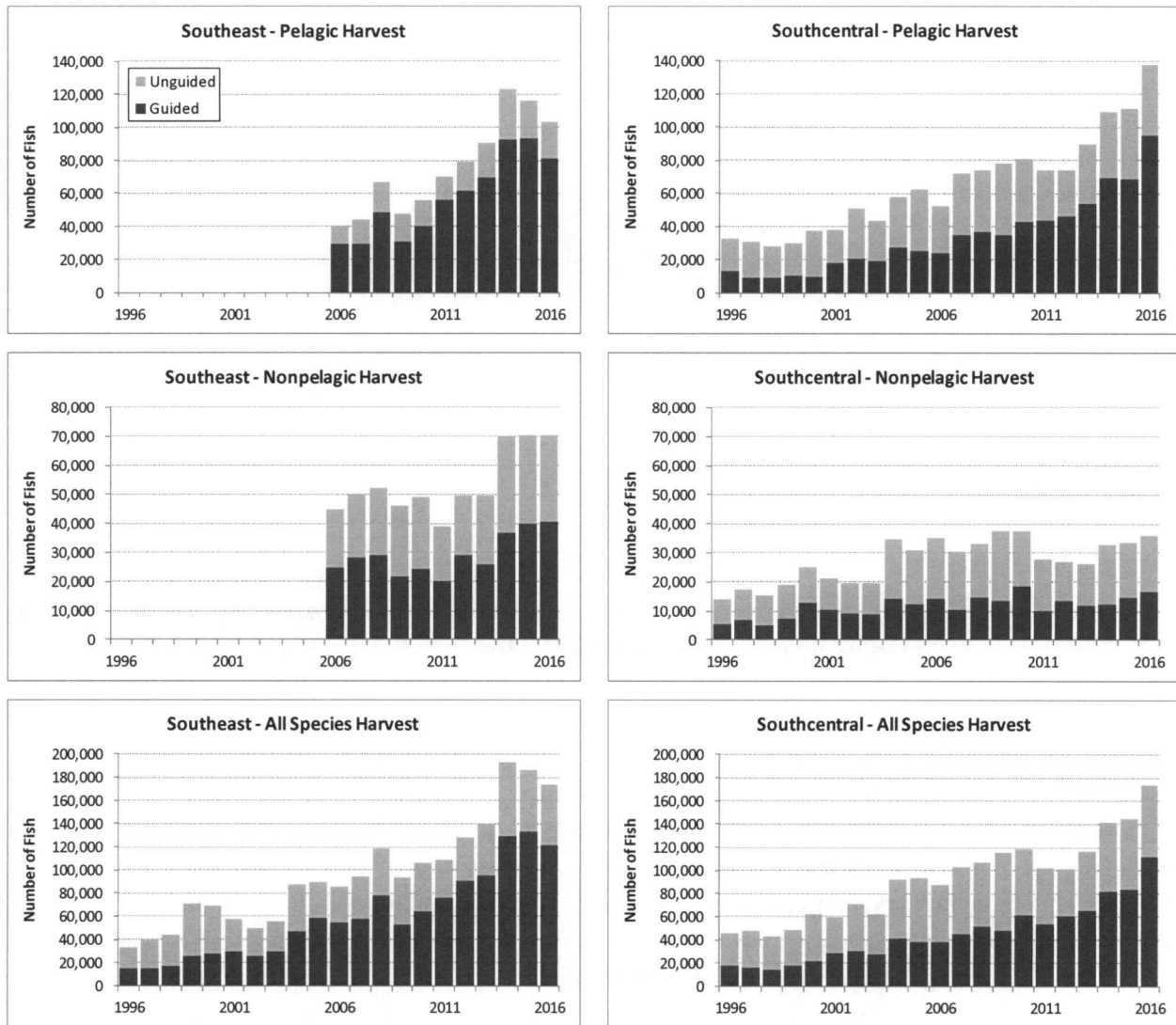


Figure 1. Sport harvest (in numbers of fish) of pelagic, nonpelagic, and all rockfish in Southeast and Southcentral Alaska by guided and unguided anglers, 1996-2016. Estimates of pelagic and nonpelagic rockfish harvest are available only since 2006 in Southeast Alaska. Harvest estimates are based on the Statewide Harvest Survey, and species apportionment is based on creel survey data.

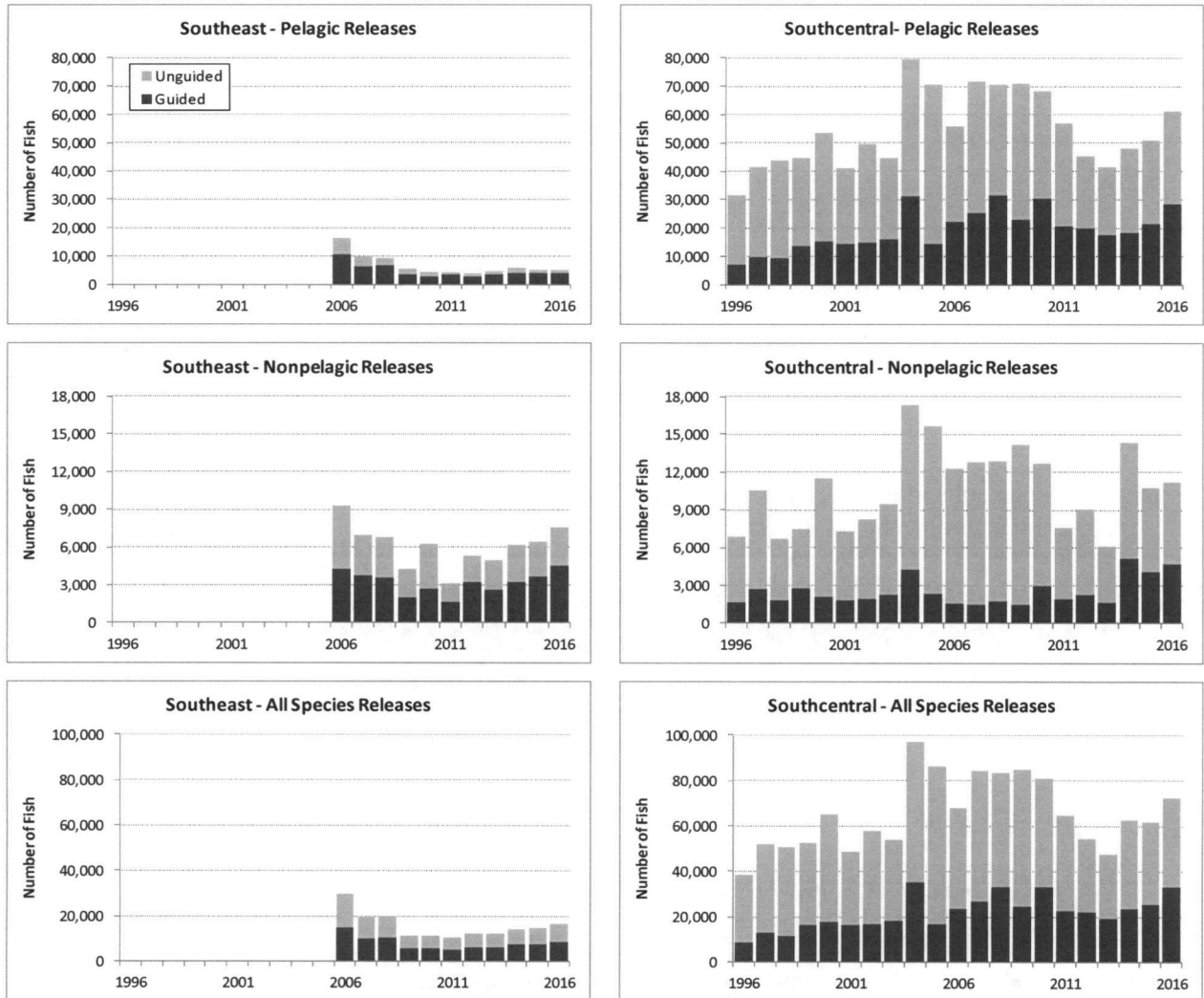


Figure 2. Estimated sport releases (in numbers of fish) of pelagic, nonpelagic, and all rockfish in Southeast and Southcentral Alaska by guided and unguided anglers, 1996-2016. Estimates of pelagic and nonpelagic rockfish harvest are available only since 2006 in Southeast Alaska. Estimation methods vary by region: (1) Southeast estimates are based on application of charter release rates from the logbook to both guided and unguided estimates of harvest by assemblage, and (2) Southcentral estimates are based on apportionment of SWHS release estimates using creel survey data on species composition of releases.

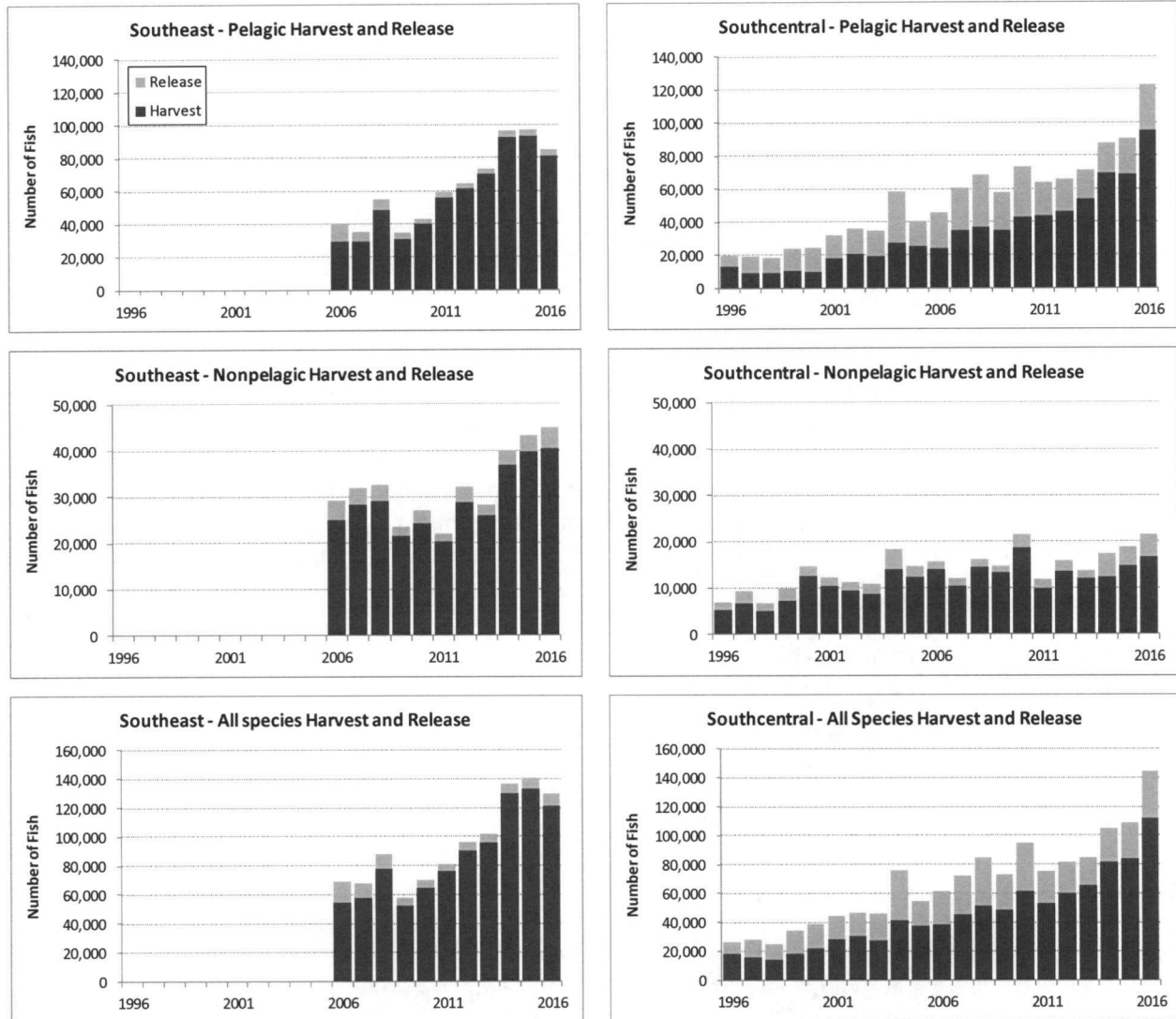


Figure 3. Guided sport catch (harvest and release, in numbers of fish) of pelagic, nonpelagic, and all rockfish species in Southeast and Southcentral Alaska, 1996-2016. Estimates of pelagic and nonpelagic rockfish harvest are available only since 2006 in Southeast Alaska.

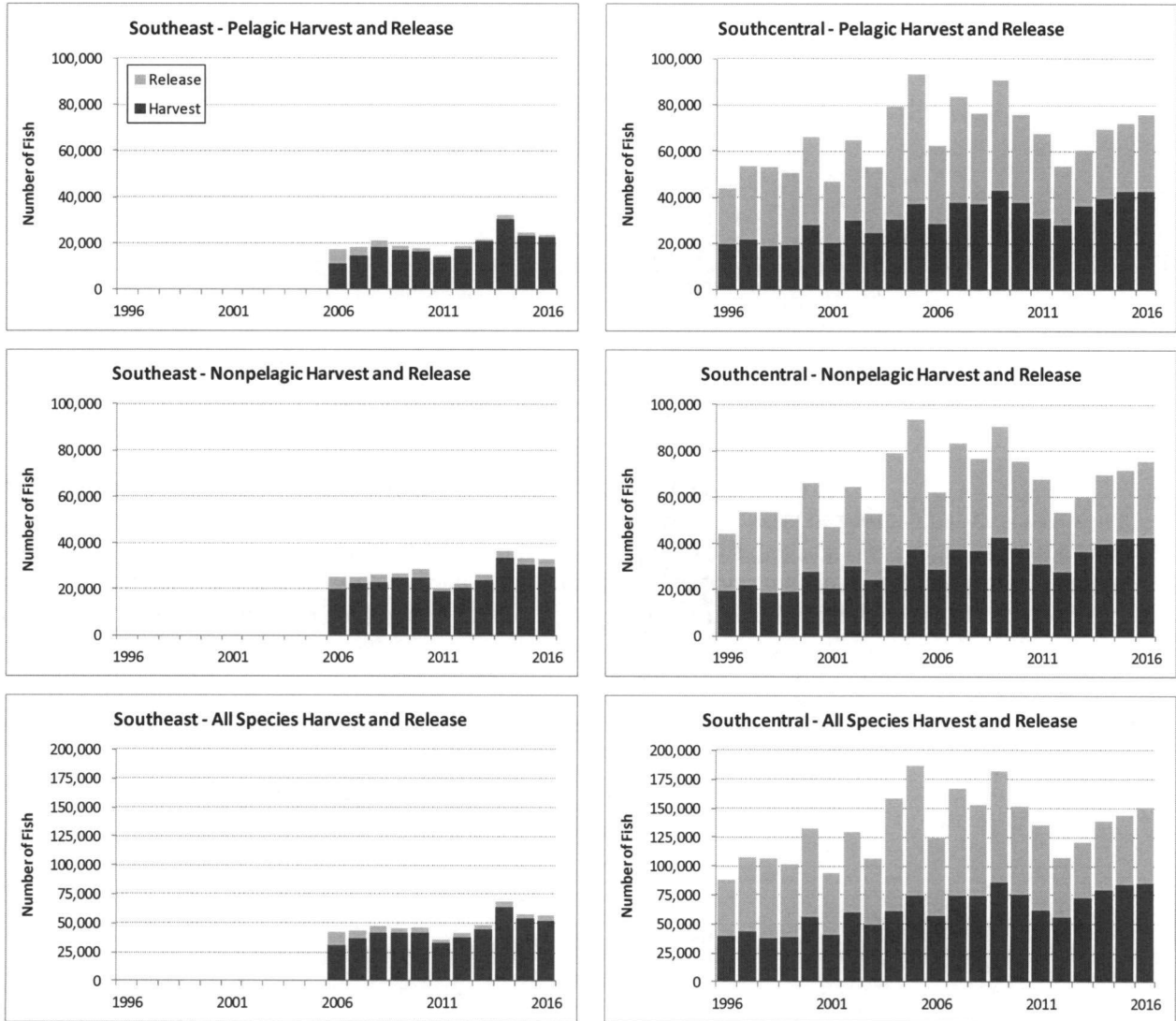


Figure 4. Unguided sport catch (harvest and release, in numbers of fish) of pelagic, nonpelagic, and all rockfish species in Southeast and Southcentral Alaska, 1996-2016. Estimates of pelagic and nonpelagic rockfish harvest are available only since 2006 in Southeast Alaska.

## Use of Deepwater Release Mechanisms in Southeast Alaska

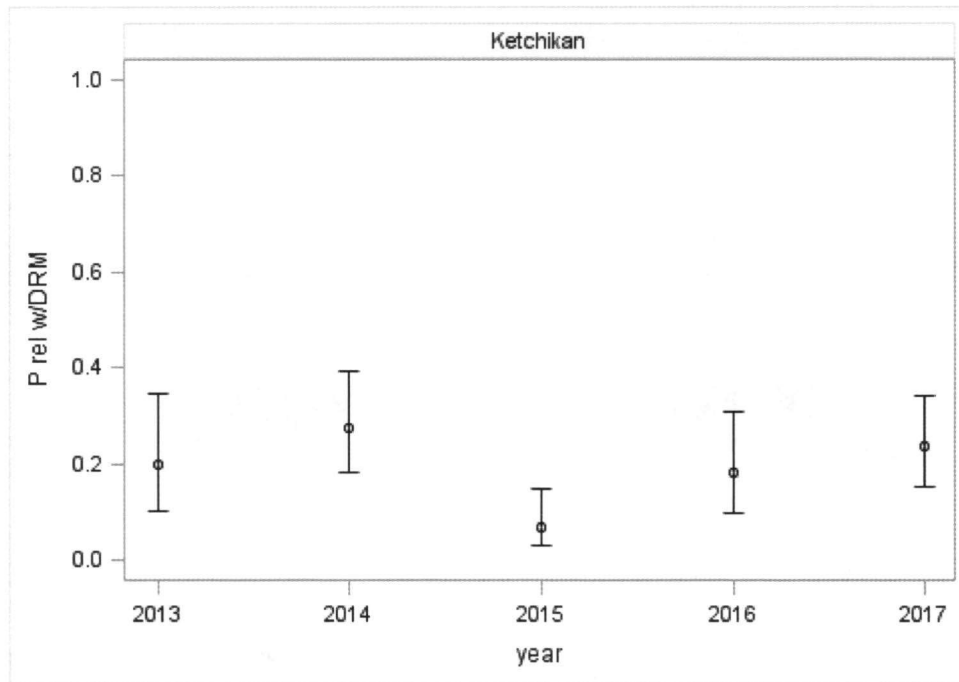


Figure 5. Estimates and 95% confidence intervals for the proportions of private boat trips on which at least one nonpelagic rockfish was released using a deepwater release mechanism (DRM) at Ketchikan, 2013-2017. Data are based on creel survey interviews for boat-trips that reported releasing nonpelagic rockfish. No data are presented for other ports due to small sample sizes, or for the charter sector since DRM use has been mandatory for release of nonpelagic rockfish since 2013.



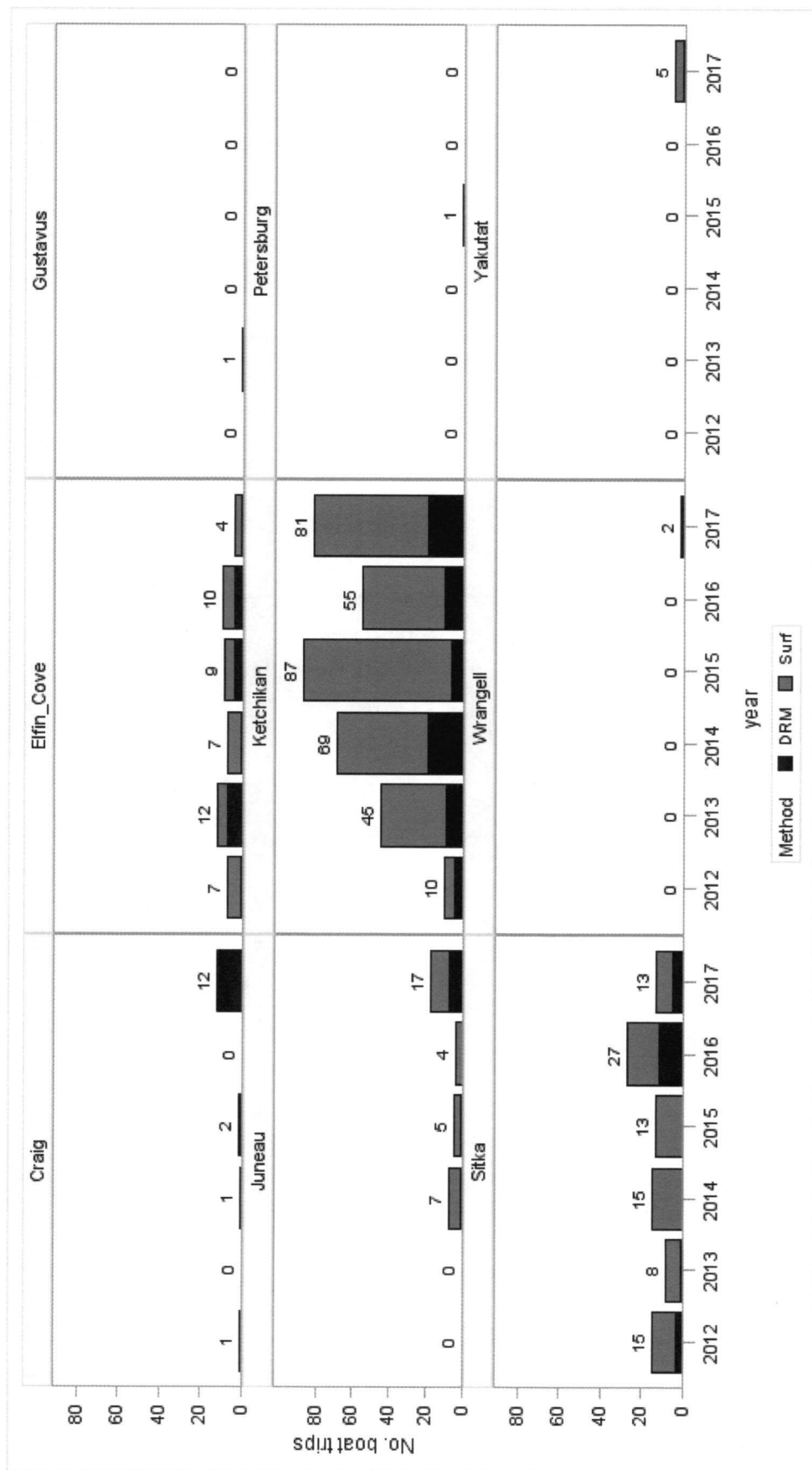


Figure 6. Reported number of unguided boat-trips on which at least one nonpelagic rockfish was released using a DRM or released at the surface in Southeast Alaska, 2012-2017 (creel sampling interview data). Numbers above bars indicate the total number of boat-trip interviews each year.

Use of Deepwater Release Mechanisms in Southcentral Alaska

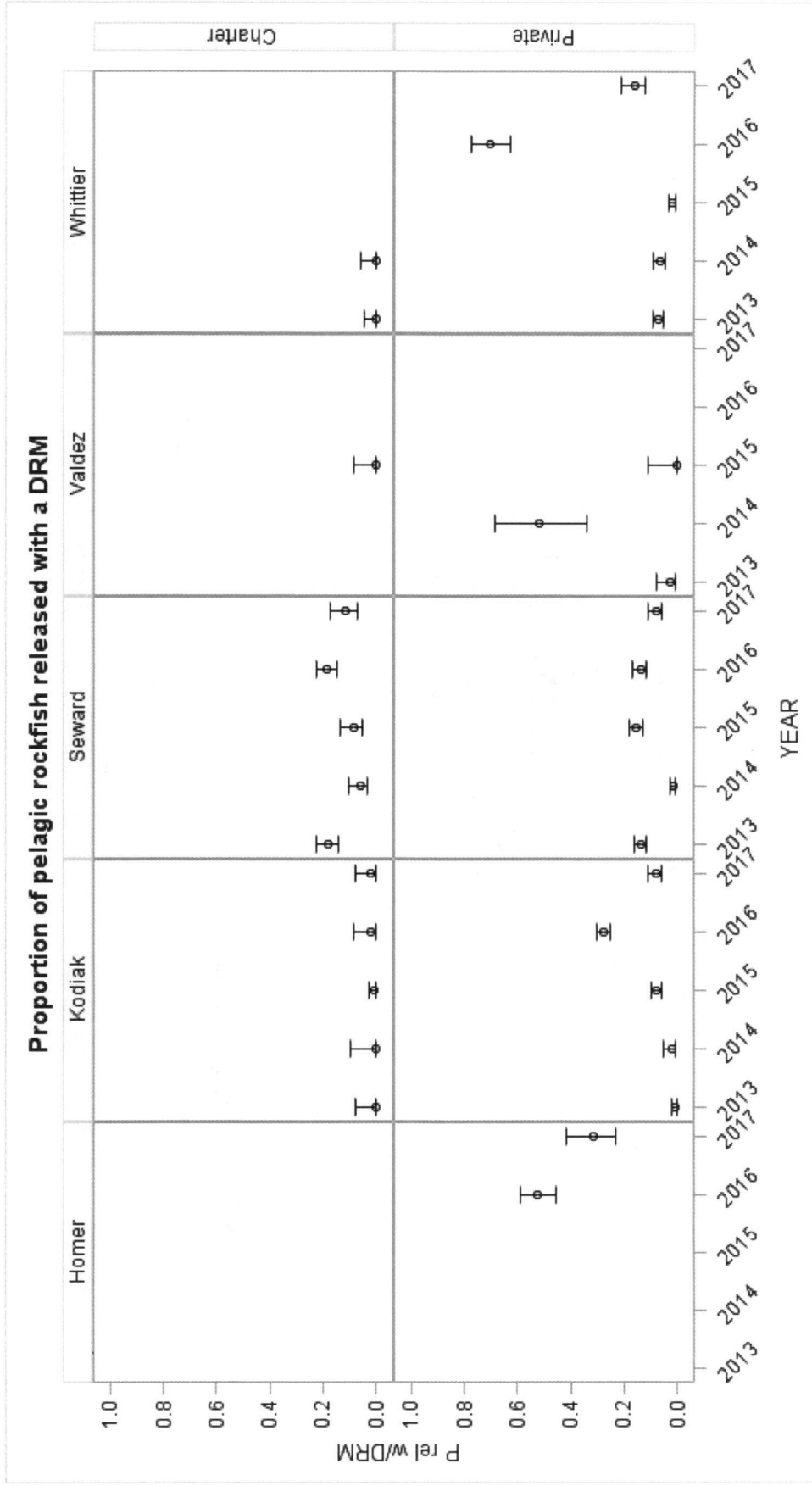


Figure 7. Estimates and 95% confidence intervals for the proportions of pelagic rockfish released using a deepwater release mechanism in Southcentral Region by charter and private anglers, 2013-2017 (based on creel sampling interview data). The plot only shows data for ports and years with at least 10 boat-trips that reported release of pelagic rockfish.

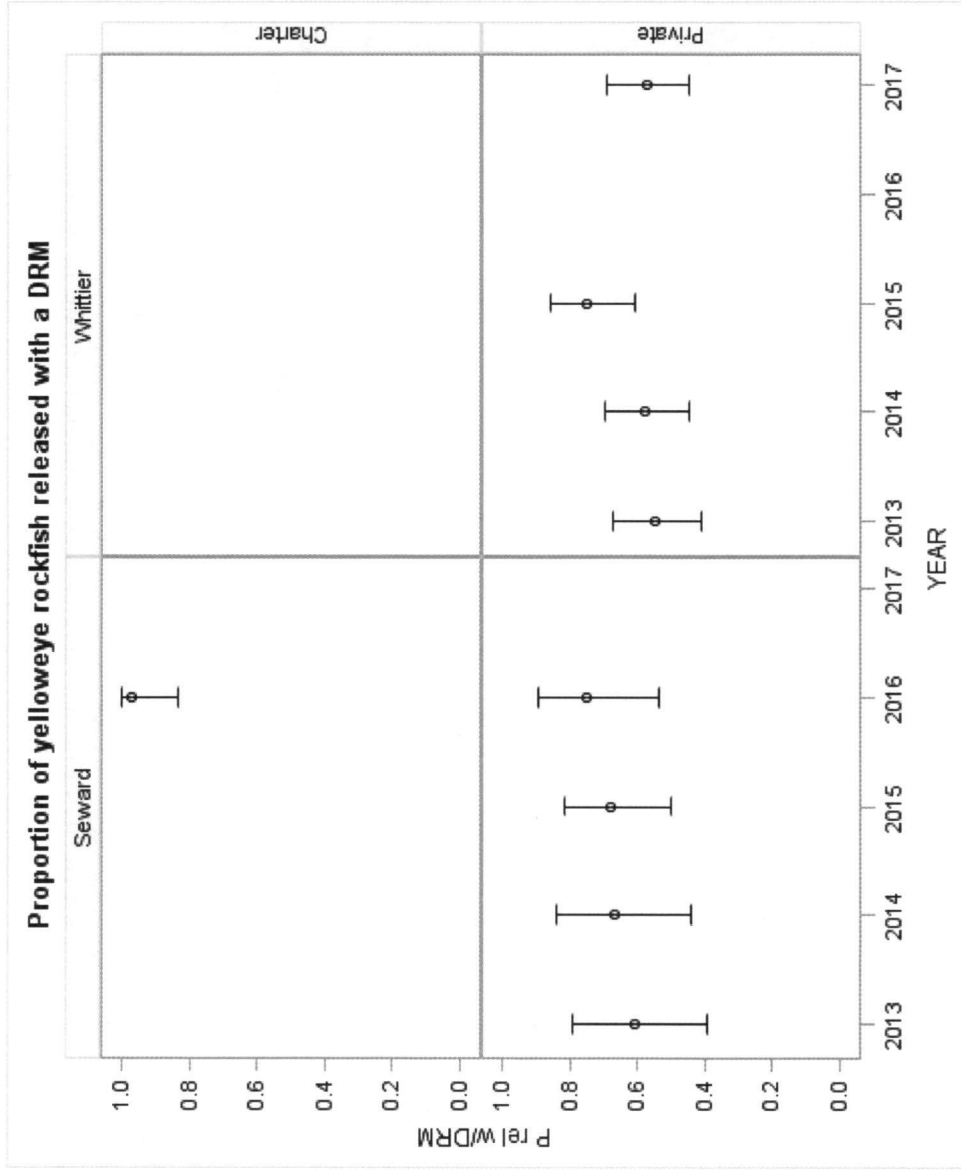


Figure 8. Estimates and 95% confidence intervals of the proportions of yelloweye rockfish released using a deepwater release mechanism in Southcentral Region by charter and private anglers, 2013-2017 (based on creel sampling interview data). The plot only shows data for ports and years with at least 10 boat-trips that reported release of yelloweye rockfish.

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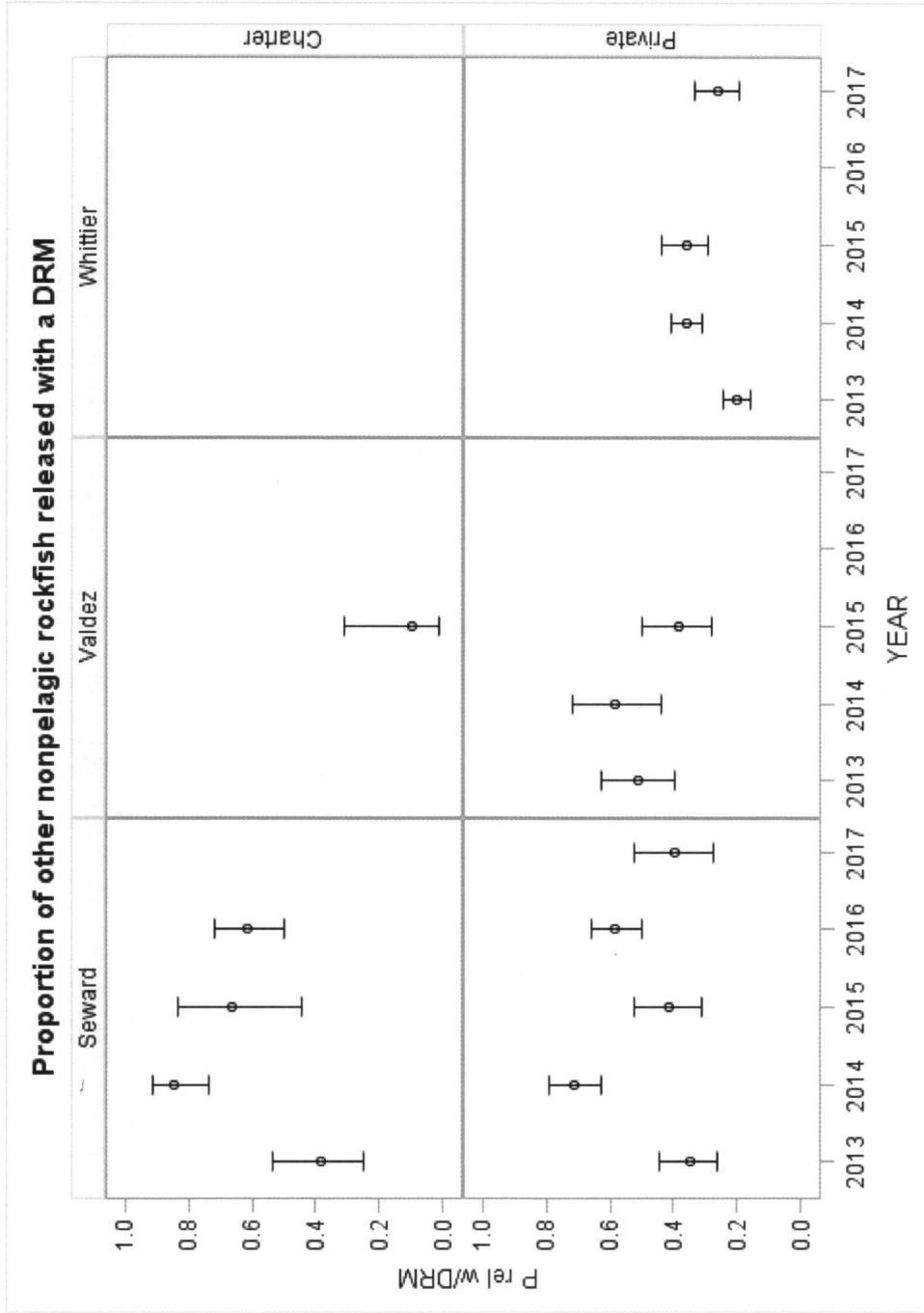


Figure 9. Estimates and 95% confidence intervals of the proportions of other nonpelagic rockfish (excluding yelloweye) released using a deepwater release mechanism in Southcentral Region by charter and private anglers, 2013-2017 (based on creel sampling interview data). The plot only shows data for ports and years with at least 10 boat-trips that reported release of other nonpelagic rockfish.

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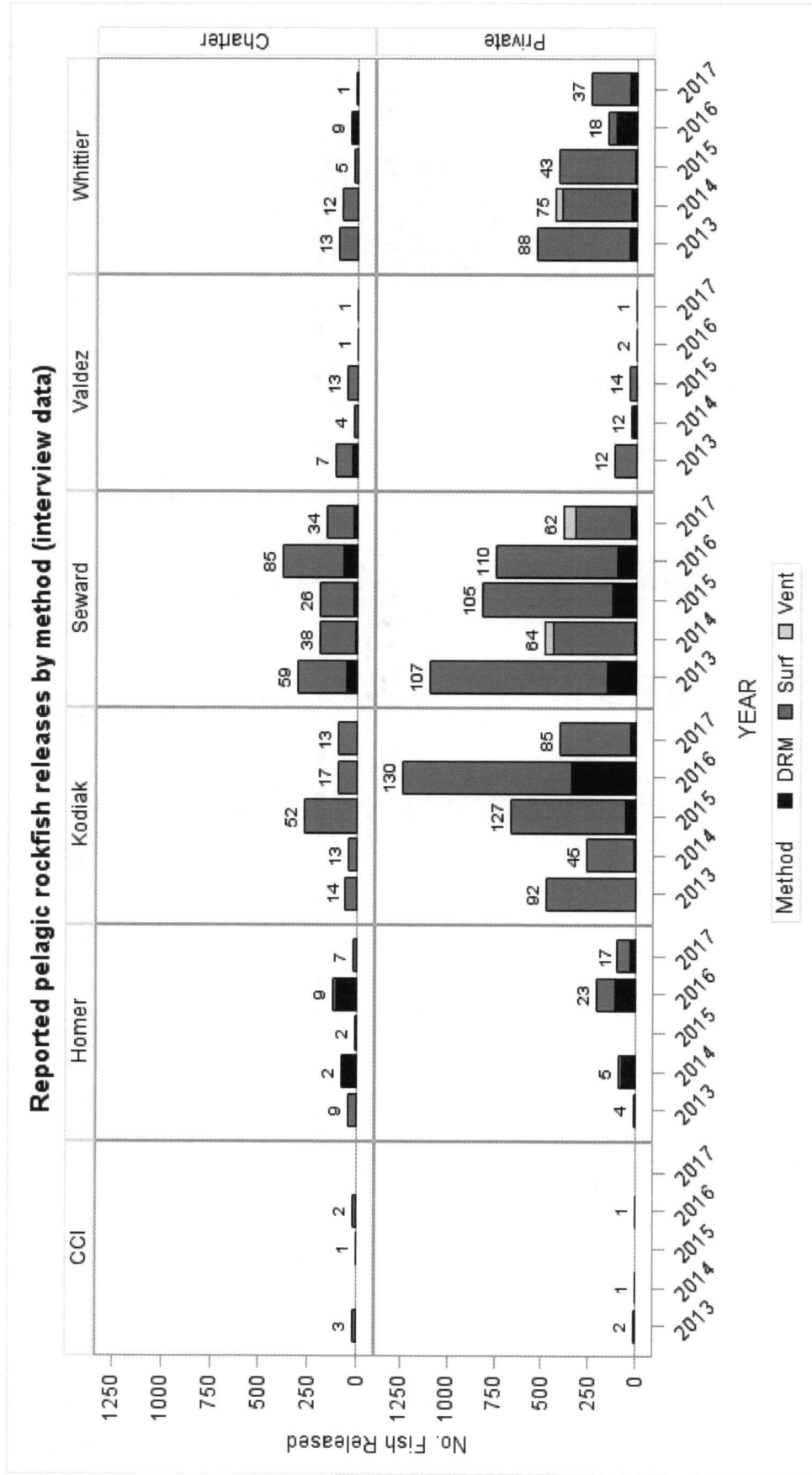


Figure 10. Reported pelagic rockfish releases by release method in Southcentral Region, 2013-2017 (creel sampling interview data). Numbers above bars indicate the number of boat-trip interviews with released pelagic rockfish each year.

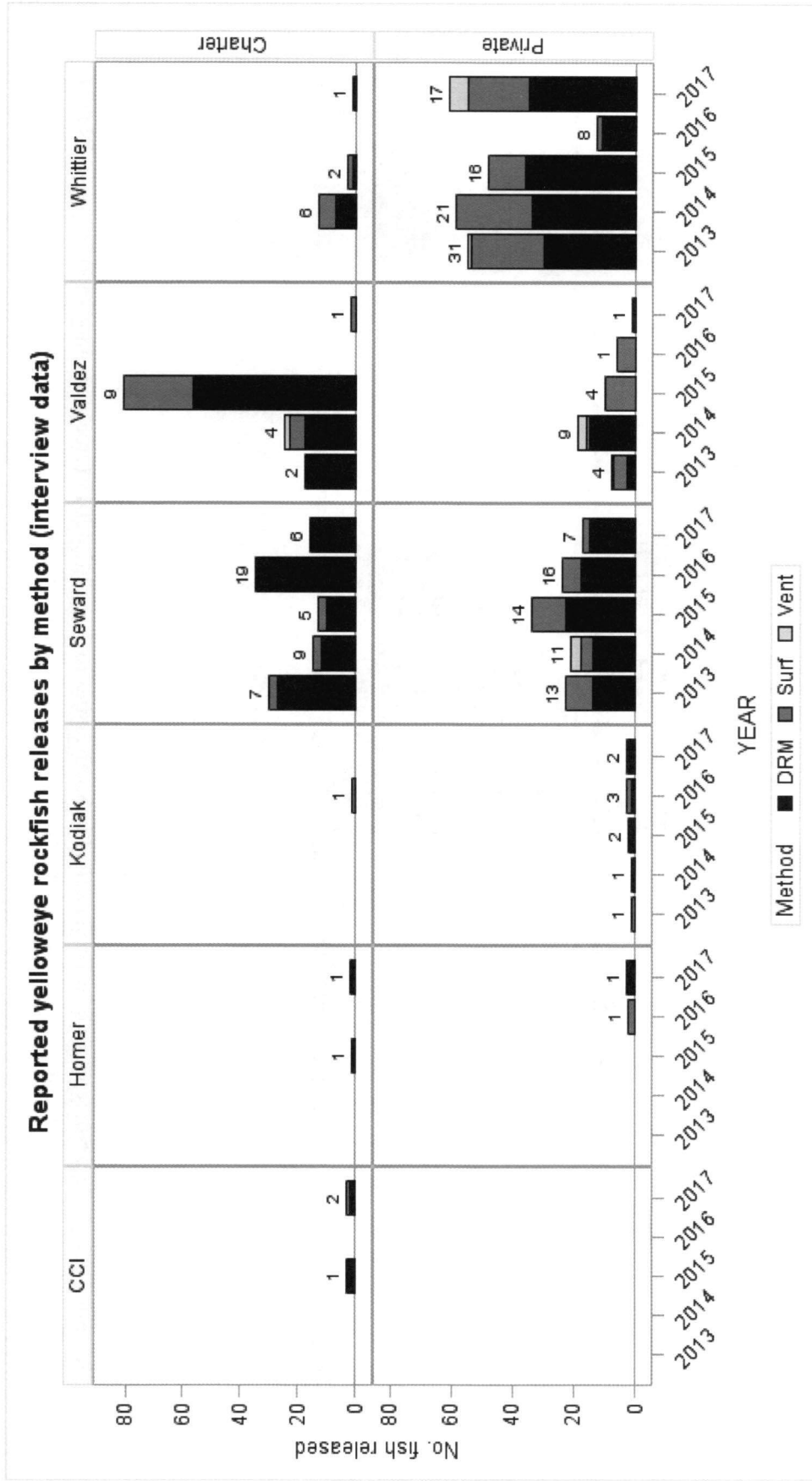


Figure 11. Reported yelloweye rockfish releases by release method in Southcentral Region, 2013-2017 (creel sampling interview data). Numbers above bars indicate the number of boat-trip interviews with released yelloweye rockfish each year.

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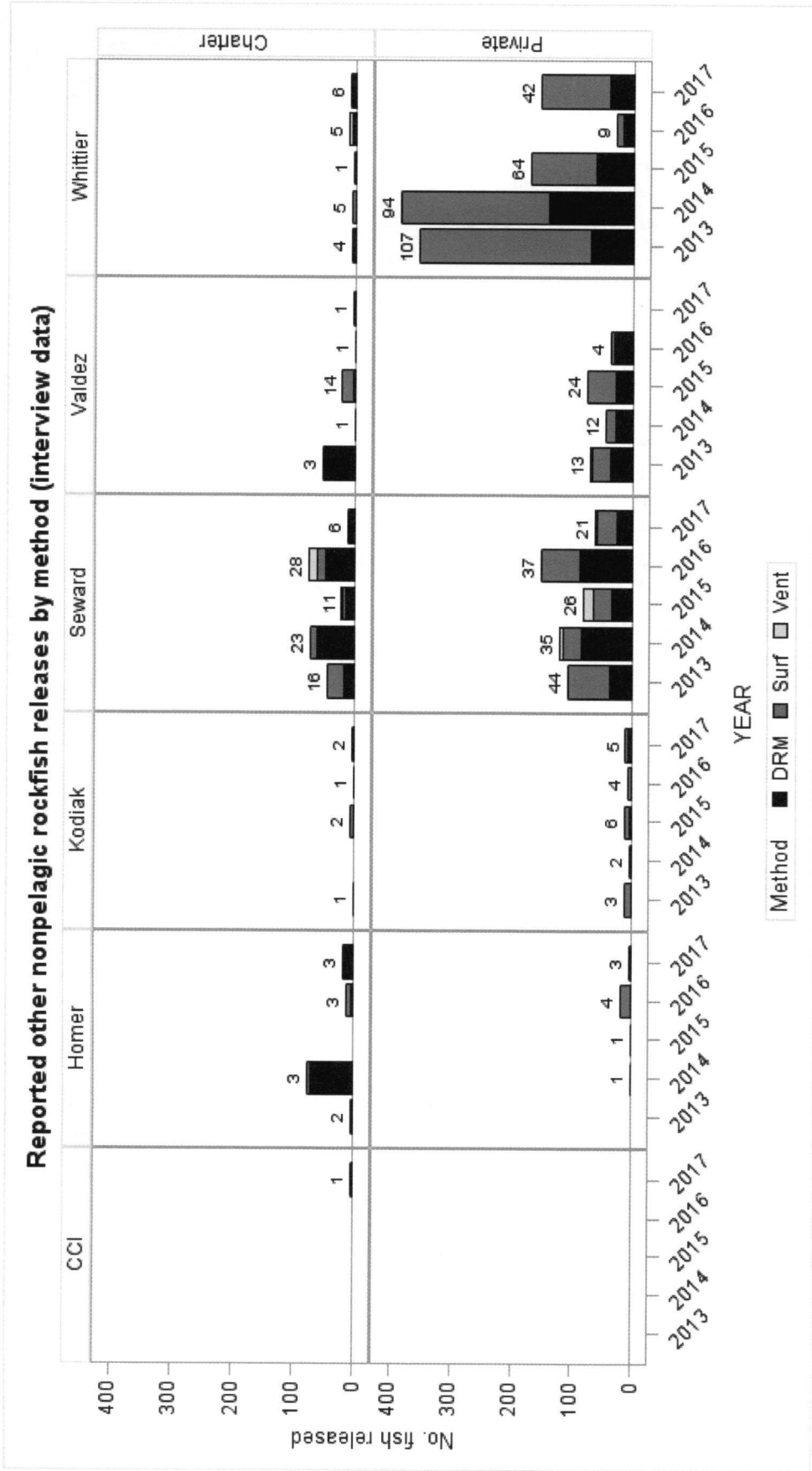


Figure 12. Reported other nonpelagic rockfish releases by release method in Southcentral Region, 2013-2017 (creel sampling interview data). Numbers above bars indicate the number of boat-trip interviews with released other nonpelagic rockfish each year.