



**Priest Rapids Fish Forum**  
**Conference Call**

**Wednesday, 1 December 2021**  
**9:00 – 10:20 a.m.**

**FINAL MINUTES**

**PRFF Representatives**

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Steve Lewis, USFWS  
 Ralph Lampman, Donella Miller, YN  
 TBD, Wanapum  
 Jason McLellan, Bret Nine, CCT  
 Mike Clement, Chris Mott, Grant PUD  
 Tracy Hillman, Facilitator

Patrick Verhey, Laura Heironimus, WDFW  
 Breean Zimmerman, WDOE  
 Aaron Jackson, Carl Merkle, CTUIR  
 Marchelle Foster, BIA  
 Tom Skiles, CRITFC/CTUIR  
 Erin Harris, Grant PUD

**Meeting Attendees**

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Jason McLellan, CCT  
 Mike Clement, Grant PUD  
 Chris Mott, Grant PUD  
 Nathan Patterson, YN  
 Steve Lewis, USFWS  
 Tracy Hillman, Facilitator

Ralph Lampman, YN  
 Paul Grutter, Golder  
 Laura Heironimus, WDFW  
 Elaine Harvey, WDFW  
 Doris Squeochs, Wanapum

**Action Items:**

- Jason McLellan will provide the PRFF with a technical report on assessing age and movement of white sturgeon in Lake Roosevelt.
- Members will have 30 days to review the draft bull trout annual report once it is available.
- Mike Clement will check with Bao Le to see if he can provide a presentation on 2021 Pacific lamprey activities and results during the January or February meeting.

## **I. Welcome and Introductions**

Tracy Hillman welcomed everyone to the meeting and identified all attendees.

## **II. Agenda Review**

Tracy Hillman reviewed the draft agenda. Attendees approved the agenda with the addition of an update on the USFWS Bull Trout Assessment Meeting.

## **III. Approve October Meeting Notes**

PRFF members present reviewed and approved the 6 October 2021 meeting minutes.

## **IV. Review Action Items**

There were no action items to review from the October meeting.

## **V. White Sturgeon**

### **A. Update on Juvenile Rearing**

Nathan Patterson reported that juvenile sturgeon rearing at the Yakama Nation Sturgeon Hatchery are doing well. He said they last sampled fish on 29 November and fish are averaging 12.3 fish per pound. This is larger than the average size last year at this time, which was 16.8 fish per pound. He added that survival rates are good and there are no rearing issues at this time.

### **B. Juvenile and Adult Index Monitoring**

Paul Grutter gave a presentation titled, "Grant County White Sturgeon Monitoring & Evaluation Program: 2020 Summary" (see Attachment 1). Paul began the presentation by identifying the outline for the presentation, including the tagging and releasing of brood year 2019 fish, broodstock collection, adult indexing, and juvenile indexing.

**Tagging and Release:** Paul noted that all juvenile sturgeon were tested for autopolyploidy before tagging. Only 8N fish were retained and tagged (16 autopolyploidy fish were removed). Tagging included the implementation of 12.5-mm 134 kHz ISO FDX PIT tags and removal of three left lateral scutes. All tagged fish were measured for fork length and weight, and they were examined for fin deformities and health. Paul indicated that 936 juvenile sturgeon were released into Wanapum Reservoir (at Vantage Bridge Launch) and 549 were released in Priest Rapids Reservoir (Desert Aire Launch). Thus, a total of 1,485 juvenile sturgeon were released in April 2021 into the project area.

**Broodstock Collection:** Paul then described broodstock collection in 2021. Broodstock collection occurred over a 10-day period from 17-21 May and 24-28 May 2021. Broodstock were captured with angling gear just downstream from McNary Dam. A total of 91 sturgeon were landed. Of those, 56 were greater than 150-cm fork length (mature spawning size). Of those, six ripe males and six ripe females were transported to the Yakama Nation Sturgeon Hatchery. Those fish were spawned on 10 June 2021, with sufficient gametes to produce 32 genetic families.

**Adult Indexing:** Paul indicated that Golder and Blue Leaf conducted the adult sturgeon indexing work during 16-26 August (capture session) and 9-19 September (recapture session). The two sessions each consisted of 96 overnight (192 total) sets distributed between Wanapum Reservoir (132 overnight sets; 82,766 hook-hours) and Priest Rapids Reservoir (60 overnight sets; 37,863 hook-hours). Each mainline was 600-feet long and consisted of up to 30 leaders spaces at 15-foot intervals. Three different size hooks were used (12/0, 14/0, and 16/0). Hooks were baited with pickled squid and lines were retrieved every 24 hours. Paul stated that they captured 443 sturgeon (333 fish in Wanapum Reservoir and 110 in Priest Rapids Reservoir). He added that they captured several mature "CRITFC" fish (black eggs F4; M2 males). Paul presented a figure showing the number of adult sturgeon captured from each brood year within each reservoir. In addition, he showed the number of fish captured, effort, and catch per unit effort (CPUE) by river mile. Finally, he showed the frequency of different size sturgeon captured and recaptured within each reservoir by brood year. These figures included hatchery, wild, and unknow-origin sturgeon.

**Juvenile Indexing:** Paul stated that Golder and Blue Leaf conducted juvenile indexing during 27 September to 23 October 2021. Sampling consisted of 360 overnight sets (288,766 hook-hours) distributed between Wanapum Reservoir (270 overnight sets; 211,821 hook-hours) and Priest Rapids Reservoir (90 overnight sets; 76,945 hook-hours). Each line was 400-feet long and consisted of 40 leaders per line. Two different size hooks were used (2/0 and 4/0). Hooks were baited with pickled squid and lines were retrieved every 24 hours. Paul said they captured 924 sturgeon (754 in Wanapum Reservoir and 170 in Priest Rapids Reservoir). This was a record for the number of fish captured over all survey years. Paul presented a figure showing the number of juvenile sturgeon captured from each brood year within each reservoir. In addition, he showed the number of fish captured, effort, and CPUE by river mile. Lastly, he showed the frequency of different size sturgeon captured within each reservoir by brood year. These figures included hatchery, wild, and unknow-origin sturgeon.

**Questions:** Paul was asked about the “unknown” sturgeon sampled in the project area. He indicated those are hatchery fish (scute marked) that are missing their PIT tags. Some could be hatchery fish planted in the Wells and/or Rocky Reach reservoirs. The size of those “unknown” fish varied depending on their brood year. Regarding a question about the size of “CRITFC” fish, Paul responded that females with black eggs were about 150 cm fork length, which is relatively small. In contrast, male “CRITFC” fish were larger and had large gonads. Following a question about why wild sturgeon were found in the Priest Rapids Reservoir, Paul indicated he was not sure. Jason McLellan responded that recruitment of wild fish to the Priest Rapids Reservoir may be related to stream flows, which were high in 2011 and 2012. Jason asked whether fin-ray sections were collected from wild fish for aging. Paul responded, no, but they collect fin-ray sections in the past. Jason recommended that future sampling should include the collection of fin-ray sections so one can assess the relationship between recruitment and environmental factors. Jason also suggested the use of microchemistry to help with assessing movement and origin (hatchery versus wild). Jason said he will share a report on assessing age and movement of white sturgeon in Lake Roosevelt using microchemistry. Laura Heironimus noted that WDFW used to collect fin-ray sections but stopped doing it because it is harder to age larger fish. When asked about differentiating wild sturgeon from hatchery sturgeon for harvest, Paul indicated there is a difference between hatchery and wild fish based on size and scute marks. Paul was asked whether progeny produced from hatchery fish spawning in the wild are considered “wild” fish. Paul said yes. Another question was what currently limits sturgeon reproduction within the project area? Paul said it varies but is likely related to predators and rearing habitat in the project area. Jason added that the bottleneck varies depending on location. Changes in flow and habitat can limit sturgeon production. Also, the transition to exogenous feeding can be a bottleneck. Ralph Lampman asked whether releasing larger-size fish would bypass the bottleneck. Jason responded, yes it can. Jason reminded members that the purpose of the supplementation program is to restore natural recruitment by maintaining population demographics and genetic diversity, in addition to providing for some harvest.

### **C. Other White Sturgeon Items**

None.

## **VI. Bull Trout**

### **A. Annual Bull Trout Report**

Mike Clement indicated that they are finishing the 2021 annual bull trout report. He said the report will be available soon for a 30-day review. Mike noted that they observed one bull trout this year in the Wanapum Dam fishway; no bull trout were observed in the Priest Rapids Dam fishway. Mike said the photo of the bull trout observed at Wanapum Dam does not have a time stamp because of the new software. He clarified that they know the day the fish was observed; however, they do not know the time of day the fish was observed. Grant PUD is fixing the software so it will provide a time stamp on future photographs. Mike indicated that there were no breaks in monitoring during the survey period.

Mike also reported that they did not detect any PIT-tagged bull trout at their projects (based on full-duplex PIT tag detectors), nor did they observe any bull trout during other sampling activities (e.g., juvenile bypass activities, predator control programs, maintenance activities, sturgeon and lamprey activities, or hatchery activities). Mike did

say they captured a few bull trout in screw traps located in Nason Creek and the White River. He said 21 bull trout were captured in the White River trap and one bull trout was capture in the Nason Creek trap.

Steve Lewis asked if Grant PUD conducted any bull trout monitoring at the dams during the off-season. Mike responded they conducted off-season sampling last winter at the request of USFWS. Those efforts indicated no bull trout observations during the off season; therefore, they discontinued off-season monitoring. Steve indicated that Chelan PUD is conducting off-season monitoring at Rocky Reach Dam and those data are being used to inform the status of the population and life-history characteristics.

## **B. USFWS Bull Trout Assessment Meeting**

Tracy Hillman reported that the USFWS will hold two meetings in the near future. The first is a Bull Trout Species Assessment Partner Update, which will occur on Wednesday, 15 December 2021 from 3:00-4:00 pm PST. The purpose of the meeting is to provide their partners with an update on their analytical process and methodology for the assessment and answer any questions regarding the assessment. This meeting is for non-Tribal partners. The USFWS is hosting a separate meeting with Tribal partners.

The second meeting (Upper Mid-Columbia Bull Trout Work Group Annual Meeting) is scheduled for Thursday, 27 January 2022 from 12:30-5:00 pm PST. The purpose of this meeting is to (1) provide a status update and review of the Species Status Assessment and timelines, (2) review last year's Threats Assessment results and updates, and (3) review demographic data and update those data with new information. The USFWS will send out an agenda for the meeting as we get closer to the meeting date.

Tracy said both meetings will be virtual. Members can contact Rebecca Migala or Erin Britton Kuttel for more information.

## **C. Other Bull Trout Items**

None.

## **VII. Adjourn**

Tracy Hillman adjourned the meeting at 10:20 am.


## **VIII. Next Meeting**

The next meeting of the PRFF will be on 5 January 2022.

# Attachment 1

## Presentation by Paul Grutter on the 2021 Grant PUD White Sturgeon M&E Summery



  
  
GOLDER

 BLUE LEAF  
ENVIRONMENTAL

### Priest Rapids Fish Forum

2021 GRANT PUD WHITE STURGEON M&E  
SUMMARY

1 December 2021



# AGENDA



- 2018BY Tagging and Release
- Broodstock Capture
- Adult White Sturgeon Indexing
- Juvenile White Sturgeon Indexing

## 2019BY Tagging and Release

2021



- Remainder of 2019BY were tagged and released
- All fish tested for autopolyploidy (10N or 12N vs 8N) prior to tagging
- Tagging conducted at YNSH
  - implanted with a 12.5 mm 134 kHz ISO FDX PIT tag
  - marked by removal of three left lateral scutes
  - measured for fork length, weight, and assessed for the presence of fin deformities and overall health

## 2019BY Tagging and Release



- 2019BY held at YNSH were PIT-tagged and marked from April 6 to 8.
- Only 16 fish identified with AP
- 1,485 juvenile white sturgeon from the 2019BY were released in the Project area on April 20
  - 936 fish released in Wanapum Reservoir
    - Vantage Bridge Launch (RM 420.6)
  - 549 fish released in Priest Rapids Reservoir.
    - Desert Aire Launch (RM 400.3)

## Broodstock Capture

2021

- Broodstock capture efforts were conducted over ten days from May 17 to 21 and from May 24 to 28
- Angling conducted immediately downstream of McNary Dam
- Involved Grant PUD and Blue Leaf Environment with fishing guide support
- Candidate broodstock identified by surgical inspection of gonads
- Transported to YNSH with the Grant PUD sturgeon transport trailer

## Broodstock Capture

2021

- 2021 broodstock capture efforts
- 91 sturgeon were landed
- 56 individual white sturgeon of mature spawning size (i.e., greater than 150 cm fork length)
- 6 ripe females and 6 ripe males were transported to YNSH
- On June 10, a 6x6 spawning matrix was conducted
- Sufficient gametes were obtained to produce 32 genetic families (6 families from 5 females; 2 families from 1 female) of 2021BY progeny for release in 2022



 GOLDER

6

## Adult White Sturgeon Indexing

2021

- Conducted by Golder and Blue Leaf biologists
- Adult white sturgeon population indexing capture and recapture sessions were conducted from August 16 to 26 (capture session) and from September 9 to 19 (recapture session)
- Two sessions of 96 overnight (192 total) sets distributed between Wanapum (n=132 overnight sets; 82,766 hook-hours) and Priest Rapids reservoirs (n=60 overnight sets; 37,863 hook-hours)
  - 183 m (600 ft) long nylon mainline, 0.64 cm (3/8") in diameter, anchored at both ends with 16 kg (35 lbs) metal anchors attached to float retrieval lines.
  - Up to 30 leaders (gangions) were attached to the ground line at 4.6 m (15 ft) intervals.
  - Three sizes of barbed circle hooks [i.e., small hooks #7 (12/0), medium size hooks #5 (14/0), and large hooks #3 (16/0)]
  - pulled approximately every 24 hours during sampling.
  - All gangions were baited with pickled squid.

 GOLDER

7



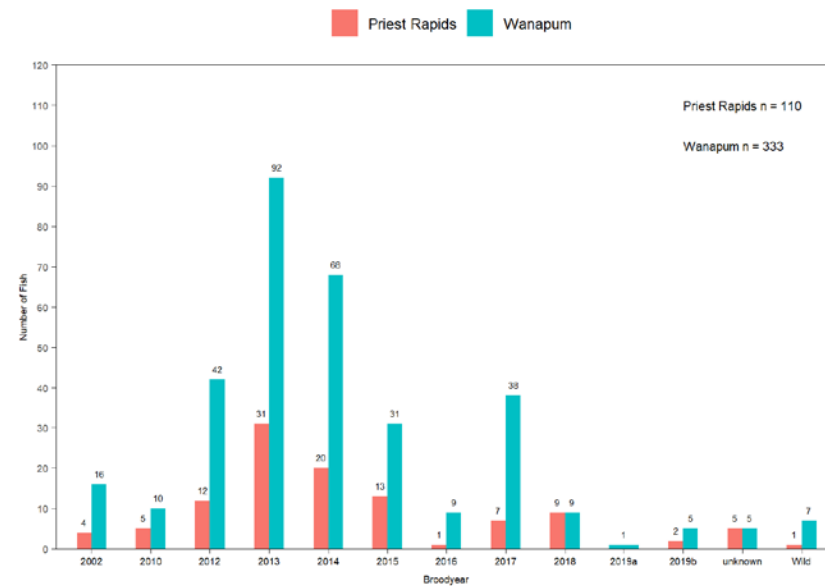
# Adult White Sturgeon Indexing

2021

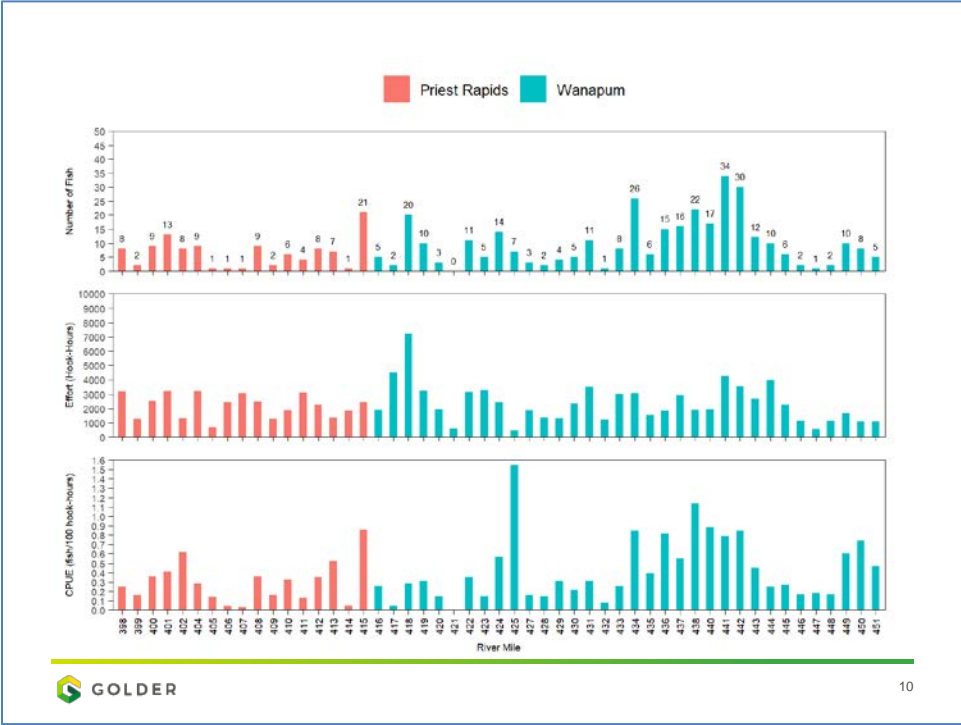
- 443 White Sturgeon Captured
  - 333 fish captured in Wanapum Reservoir (n=7 wild; n=16 2002BY; n=310 2010-2019BY)
  - 110 fish captured in Priest Rapids Reservoir (n=1 wild; n=4 2002BY; n=105 2010-2019BY)
  - Large adult female –new capture
  - Several mature CRITFC fish (black eggs F4, M2 males)



8

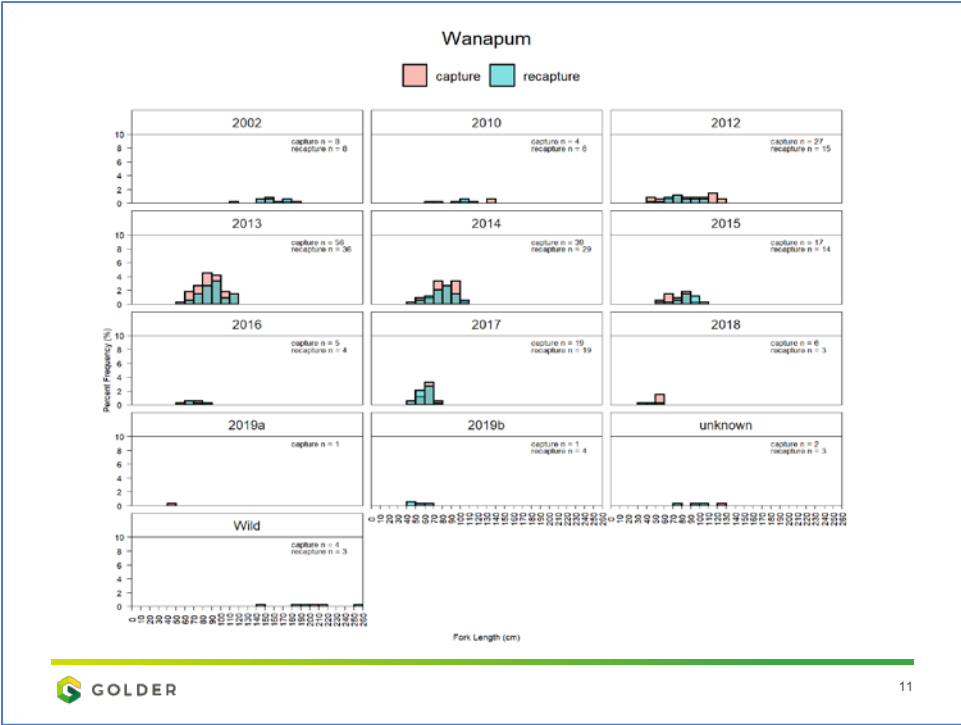


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11



## Juvenile White Sturgeon Indexing

**2021**

- Conducted by Golder and Blue Leaf biologists
- Juvenile white sturgeon population indexing September 27 to October 23
- 360 overnight sets (288,766 hook-hours) distributed between Wanapum (n=270 overnight sets; 211,821 hook-hours) and Priest Rapids reservoirs (n=90 overnight sets; 76,945 hook-hours)
- 122 m (400 ft.) 0.25 cm (1/4") diameter ground line
- 40 gangions per line
- Up to 30 leaders (gangions)
  - 0.5 m (20") in length and consisted of a swivel snap, a 30" (12") length of 150# test monofilament
  - 2/0 or 4/0 sized circle hook
  - pulled approximately every 24 hours during sampling
  - All gangions were baited with pickled squid

**GOLDER**

13

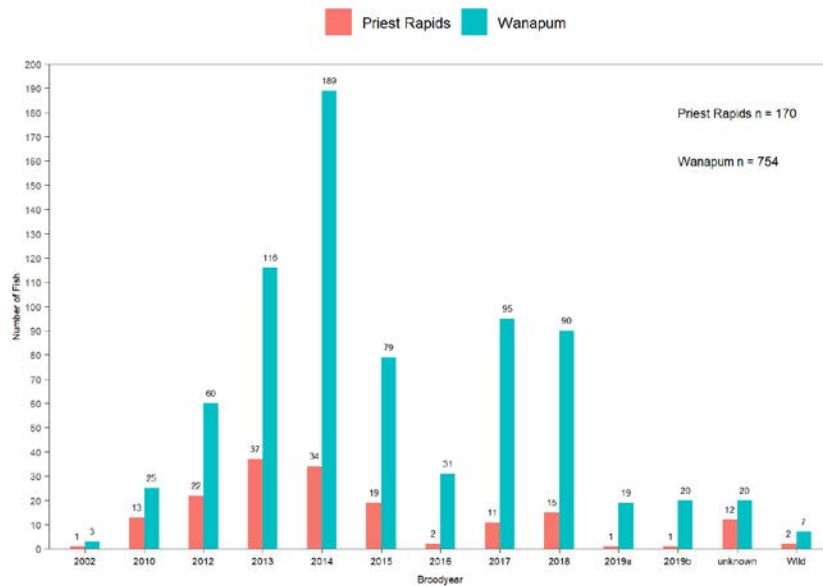
# Juvenile White Sturgeon Indexing

2021

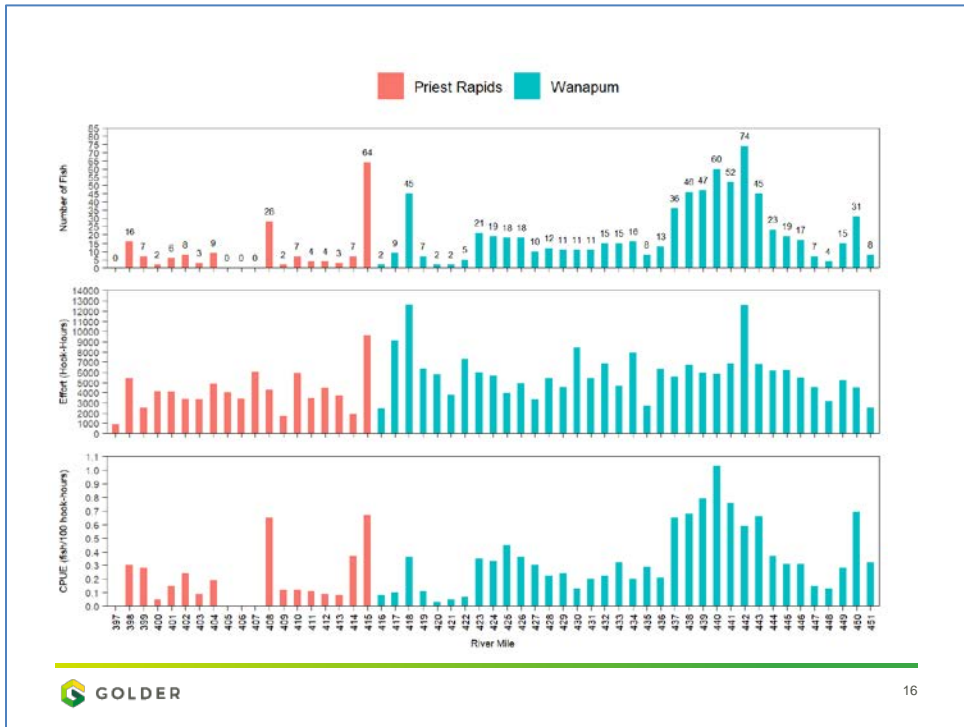
- 924 White Sturgeon captured
  - 754 fish captured in Wanapum Reservoir (n=7 wild; n=3 2002BY; n=744 2010-2019BY)
  - 170 fish captured in Priest Rapids Reservoir (n=2 wild; n=1 2002BY; n=167 2010-2019BY)
  - New record for most fish captured Large adult female –new capture
  - Several mature CRITFC fish (black eggs F4, M2 males)



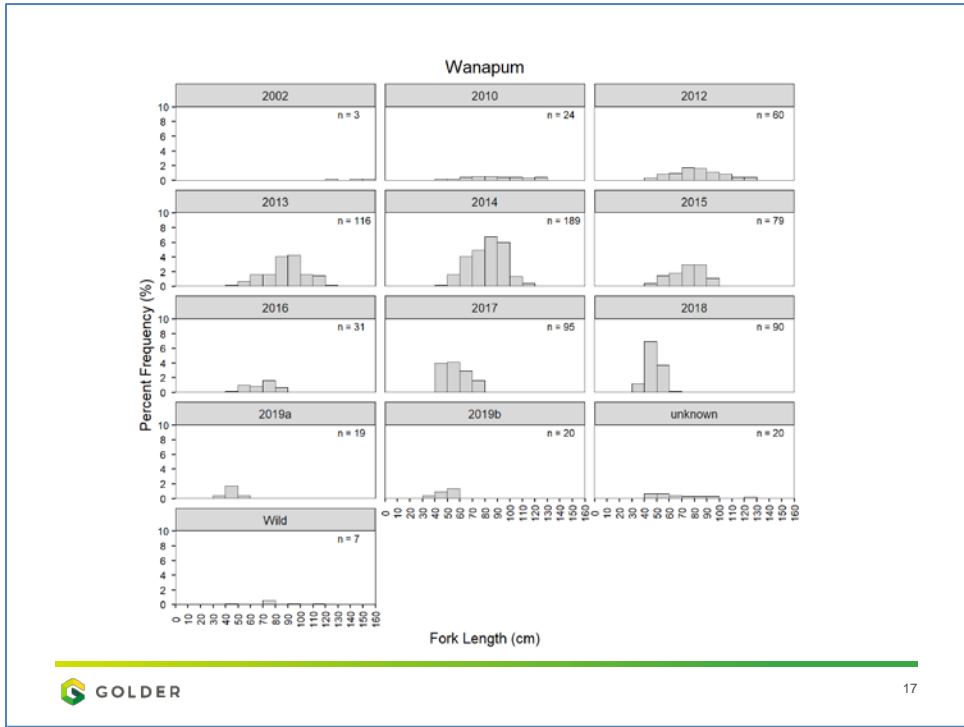
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