

Population Monitoring Work Group Meeting
September 9, 2020

Meeting Materials:

Agenda

Minutes

PMWG Program Portal Discussion [read-ahead]



Middle Rio Grande Endangered Species Collaborative Program

Est. 2000

**Population Monitoring Work Group (PMWG)
September 9, 2020
9:00 AM – 12:00 PM**

Zoom Information:

<https://west-inc.zoom.us/j/8983593120>

Call-In: +1-669-900-6833; Meeting ID: 898-359-3120

Meeting Agenda

- 9:00 – 9:15 **Welcome, Intros, Agenda, Meeting Notes** *PMWG Chair*
- **Decision:** Approval of Sept 9, 2020 agenda
 - **Decision:** Approval of June 2, 2020 minutes
- Read aheads:
- June 2, 2020 PMWG meeting minutes
- 9:15 – 10:15 **Program Portal data discussion** *Shay Howlin
Catherine Murphy*
- Program Portal Information and Discussion on the way the RGSM Population Monitoring data is being presented on the portal document archive and in the mapper.
- Read aheads:
- Program Portal RGSM Links
- 10:15– 10:25 **Break**
- 10:25 – 11:45 **Open Discussion:** *Rich Valdez*
Report to EC on Current Fish Monitoring Program (FMP)
- What are the purpose and objectives of the FMP?
 - How well does FMP track trend and status of RGSM?
 - What is current precision and accuracy of RGSM CPUE?
 - Can FMP detect change in RGSM with management actions?
 - What are ancillary benefits of data collected by FMP?
- Read aheads:
- None
- 11:45 – 12:00 **Wrap-Up** *Rich Valdez*
- Announcements
 - Action Items
 - Next Meeting
- 12:00 **Adjourn**



Middle Rio Grande Endangered Species Collaborative Program

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Population Monitoring Work Group (PMWG) Meeting Minutes

September 9, 2020; 9:00 AM–12:00 PM

Location: Zoom Meeting

Decisions:

- ✓ Approval of September 9, 2020 PMWG meeting agenda
- ✓ Approval of June 2, 2020 PMWG meeting minutes

Action Items:

Who	What	By When
Catherine Murphy and Rich Valdez	Discuss the executive summary process	9/30/2020
Shay Howlin	Send feedback from the PWMG on the mapper to U.S. Geological Survey (USGS)	9/9/2020
Shay H.	Give an update on the mapper at the next meeting	9/30/2020
Rich V.	Use the outline developed by the PMWG to begin framing the report to the Executive Committee (EC)	9/30/2020
Program Support Team (PST)	Schedule the September 30, 2020 PMWG meeting	9/11/2020
PST	Send out the Archdeacon and Reale paper	9/9/2020

Next Meeting: September 30, 2020; 1:00 – 4:00 PM

Meeting Summary

Welcome, Intros, Agenda, Meeting Notes

Rich Valdez, SWCA Environmental Consultants, opened the meeting. Debbie Lee, PST, introduced everyone in the meeting. The PMWG approved the September 9, 2020 meeting agenda and June 2, 2020 meeting minutes. Rich V. reviewed action items from the previous meeting. The following comments were made:

- Catherine Murphy, PST, and Mike Marcus, Assessment Payers Association of the Middle Rio Grande Conservancy District, were working on revising the Consolidation of Mesohabitats for Monitoring Rio Grande silvery minnow (RGSM) executive summary. The first drafts of the executive summaries have shown that they are tackling too many issues at once. The executive summaries will be broken into smaller, more manageable pieces and handled by the Science and Adaptive Management Committee and Science and Technical Ad Hoc Groups.
 - Rich V. and Catherine M. will discuss the executive summary process before the next meeting.

- Charles Yackulic and Rich V. were working to develop an approach to look at modeling scenarios. Charles Y.'s model will be finalized in the next couple weeks. Rich V. will continue working with him on modeling scenarios.
- ✓ **Decision:** Approval of September 9, 2020 PMWG meeting agenda
- ✓ **Decision:** Approval of June 2, 2020 PMWG meeting minutes
- **Action Item:** Catherine M. and Rich V. will discuss the executive summary process

Program Portal Data Discussion

Shay Howlin, PST, presented on the Program Portal's functionalities. USGS, currently developing the Portal for the Program, requested input on how the Portal's geospatial mapper displays RGSM population monitoring data. Shay H. walked the PMWG through how the data is being housed on the Portal and opened discussion. The following are the main points from the discussion:

- Are the datasets from American Southwest Ichthyological Researchers, L.L.C. (ASIR) comprehensive?
 - ASIR is likely only sending the current year's monitoring data and it is up to managers to add it to the database.
 - Be cautious when using provisional monthly data, as they tend to include the surveys from multiple months. To avoid redundant data, it is better to use end of the year data.
- How is monthly and annual data segregated?
 - Monthly data is linked to the monthly report. It's stored as a downloadable Excel file in the document archive. The aggregated 1993 – 2019 data has its own data page under Datasets.
 - The PST will request that the date range be added to the data page.
- What is the "RGSM Population Monitoring Repeated" dataset housed on the RGSM Population Monitoring page?
 - These are the repeated November surveys.
 - This should be titled "Occupancy" instead as most people would understand that better.

Shay H. presented the Portal's geospatial mapper. The mapper is currently in development and not live. When you enable the RGSM layer, every dot shown is a survey site. The dots are linked to the aggregated population monitoring data. The PMWG was asked to provide input on how data should be displayed on the mapper. These were the responses:

- Are the orange dots the 20 standard sampling sites?
 - The dots indicate every site that has been sampled since 1993.
- Pop-Up Discussion:
 - What is currently included in the pop-up window when you click a dot?
 - A summary of data parameters from the population monitoring reports, including the number of wild fish, the number of marked fish, and some water quality parameters.
 - A link straight to the datasheet would be more helpful.
 - The information in a pop-up is for one location on a given day.
 - You can use arrows to change between days.
 - It's possible to limit the days shown by a time component.
 - The pop-up does not present days in chronological order, but we could ask for that.

- It may be useful to include a water quality layer and separate it from the pop-up window.
- Could you select a specific date range and get a simple graph of absolute numbers by date?
 - USGS can include some graphs. They could use absolute numbers or catch per unit effort (CPUE).
- It would be helpful to have filter buttons for date range and other parameters you can choose to see in the pop-up.
- Suggestion for the filter to use different colors to indicate sites for different dates and locations.
- The first thing you'd want to know when clicking a dot is a general overview of the data in time series from 1993-2019. There should be a data point from every sampling that can be compared, like CPUE. Then, you can focus on a particular point in time, like one year or the same month every year.
 - In past mapping efforts, there's often been a summary analysis that links back to the spreadsheet data.
- Add more metadata into the pop-up, including the range of years that occurred at the site, the most recent sampling year, a table or two with more detail.
 - Or just a figure that plots numbers out in a time series.
- There are no filters for the RGSM layer. A filter could include these options.
- Suggestion to focus on an October graph, as it is the key one for the U.S. Fish and Wildlife Service. For other graphs, users could go back to the dataset.
- As the website is publically facing, the Program may want to be cautious of what results are shown on a graph.
 - The end-of-the-year data from ASIR is no longer provisional; it has been quality checked and is available to the public.
 - The PMWG agrees to not use provisional data on the mapper.
- Suggestion to include photos of sites.
 - ASIR does not take set photos of a site.
- What should the Y-axis be on the graph?
 - CPUE
- Has the mapper been shared with any other group?
 - No, the PST wanted to show it to the technical experts first.
- Program members would need to play with the mapper more to give better feedback.
 - Shay H. will ask USGS when they'll have a draft ready for testing.
- How much use do managers get out maps like these?
 - Some maps get a good amount of use, but it's important to talk to managers and administrators to see how they'd use it. Technical experts would be more likely to access the datasheets.
 - One issue for managers in the past is how long it takes to figure out details for a site. Taking into account adaptive management (AM), managers would like to know if an AM action is making a difference or not. It would be useful to know where the restoration projects are, what the flow components were in a given year, etc. This would help create a story about what is being done for adaptive management.
 - EC members likely won't use the mapper, but some managers would.
- Suggestion to make the dots for the 20 standard stations from the population monitoring program a different color and slightly larger.
- What's the general direction for the mapper from here?

- Shay H. will send notes from the PMWG meeting to USGS.
 - The final form of the mapper should be out by the end of the year.
 - Shay H. will present an update on the mapper at the next meeting.
- **Action Item:** Shay H. will send feedback from the PWMG on the mapper to USGS
 - **Action Item:** Shay H. will give an update on the mapper at the next PMWG meeting

Open Discussion

Rich V. opened discussion on the report to the Executive Committee (EC) on the current fish monitoring program (FMP). The PMWG was charged with three principle tasks. Task 2 is reviewing the Middle Rio Grande FMP. The PMWG will present a report to the EC on task 2 before it sunsets. The PMWG was asked to give feedback to guide how the report is written. These were the five questions discussed by the group:

- What are the purpose and objectives of the FMP?
- How well does FMP track trend and status of RGSM?
- What is current precision and accuracy of RGSM CPUE?
- Can FMP detect change in RGSM with management actions?
- What are ancillary benefits of data collected by FMP?

Rich V. produced an outline from the discussion and will use it to start framing the report.

- **Action Item:** Use the outline developed by the PMWG to begin framing the report to the Executive Committee (EC)

Wrap-Up

- The next meeting is scheduled for September 30, 2020 from 1:00 – 4:00 PM.
 - Thomas Archdeacon announced the publication of three recent papers he co-authored. Two were sent out by the PST. The third will be sent out as soon as possible.
 - Lynette Giesen, U.S. Army Corps of Engineers (USACE), announced that her funding for involvement with the Program was cut to zero. Starting October 1st, USACE will not be involved with the Program outside of the EC.
- **Action Item:** The PST will schedule the September 30, 2020 PMWG meeting
 - **Action Item:** The PST will send out the Archdeacon and Reale paper

Participants

Andy Dean
Anne Marken
Aubrey Harris
Catherine Murphy
Charles Yackulic
Debbie Lee
Eric Gonzalez
Grace Haggerty
Lynette Giesen
Michelle Tuineau
Mick Porter
Mike Marcus

Mo Hobbs
Rich Valdez
Shay Howlin
Thomas Archdeacon
Trevor Birt

U.S. Fish and Wildlife Service
Middle Rio Grande Conservancy District
U.S. Army Corps of Engineers
Program Support Team
U.S. Geological Survey
Program Support Team
U.S. Bureau of Reclamation
New Mexico Interstate Stream Commission
U.S. Army Corps of Engineers
Program Support Team
U.S. Army Corps of Engineers
Assessment Payers Association of the Middle Rio
Grande Conservancy District
Albuquerque Bernalillo County Water Utility Authority
SWCA Environmental Consultants
Program Support Team
U.S. Fish and Wildlife Service
New Mexico Interstate Stream Commission

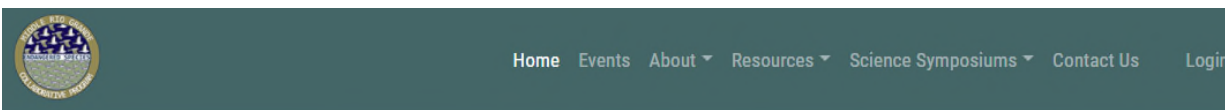
**Population Monitoring Work Group (PMWG)
September 9, 2020**

Program Portal Discussion

The purpose of this discussion is to review the tentative plans for presenting the RGSM Population Monitoring data on the Program Portal. There are currently three locations the data are presented, each described below.

I. Document Archive: Monthly ASIR Report and Provisional Data

- Program office posts monthly and sends an email and link
- 2 xlsx files: by haul and by station
- Example: <https://webapps.usgs.gov/MRGESCP/documents/rio-grande-silvery-minnow-population-monitoring-during-june-2020>



MRGESCP Documents

[Acronyms & Abbreviations](#)

REPORT/PAPER

Rio Grande Silvery Minnow Population Monitoring During June 2020

Date: 2020

Author(s): Dudley R.K., Platania S.P., White G.C.

RELATED INFORMATION	RELATED DATA
<p>Species: Rio Grande Silvery Minnow</p> <p>Organization: U.S. Bureau of Reclamation</p>	<p>June 2020 RGSM Population Monitoring Query Monthly Haul 2020 Reclamation</p> <p>June 2020 RGSM Population Monitoring Query Monthly Station 2020 Reclamation</p>



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II. Resources: Datasets Page

- Accumulated Final Data in Analysis Format
- Links to Monthly Document Archive pages
- 1993 to prior year data in “analysis ready” format
- Posted annually in May
- <https://webapps.usgs.gov/MRGESCP/data/rio-grande-silvery-minnow-population-monitoring>

Rio Grande Silvery Minnow Population Monitoring

Data Contact

Metadata and Zip File	Data Sets	Reports
<p>Metadata</p> <p><i>Metadata is not available.</i></p> <hr/> <p>Zip File</p> <p>Download metadata, datasets, and current report in a zip file.</p> <p>Download Zip File</p>	<p>RGSM Reproductive Monitoring</p> <hr/> <p>RGSM Population Monitoring</p> <hr/> <p>RGSM Population Monitoring Repeated</p> <hr/> <p>RGSM Population Estimation</p> <hr/> <p>RGSM Mark Recapture</p> <hr/> <p>For archived data sets, contact the person listed under "Data Contact" above.</p>	<p>Current Report</p> <p>Reclamation 2020 Rio Grande Silvery Minnow Population Monitoring During 2019</p> <hr/> <p>Related Reports</p> <p>The button below links to a list of all related reports.</p> <p>Related Reports</p>

Provisional Monthly Data

- [RGSM Population Monitoring By Station April 2020](#)
- [RGSM Population Monitoring By Haul April 2020](#)
- [RGSM Population Monitoring By Station May 2020](#)
- [RGSM Population Monitoring By Haul May 2020](#)
- [RGSM Population Monitoring By Station June 2020](#)
- [RGSM Population Monitoring By Haul June 2020](#)

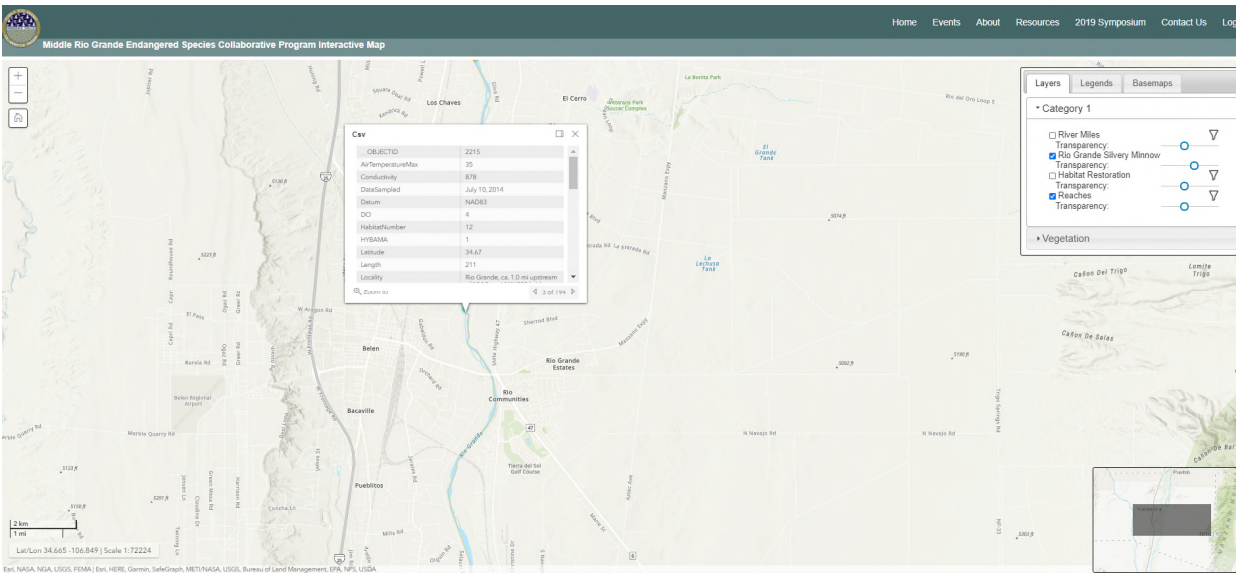


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III. Mapper: Spatial Representation of the RGSM Population Monitoring Data

- Visual Display with a clickable point for each sample location
- Text box shows data at that point
- What data should be visible?



Example Pop-up

RGSM Population Monitoring Data

Rio Grande, ca. 10.0 mi downstream of San Marcial Railroad bridge crossing, San Marcial.

Site ID: 24 Reach: San Acacia
 Date: 4/1/2019 Time: 10:25 - 11:10
 River Miles Start: 58.6 River Miles Stop: 58.5

Silvery Minnow Data

UNMARKED HYBAMA		VIE PRESENT	
Age	Caught	# Caught	
Zero	0	Color:	Yellow
One	2	Location:	Dorsal fin
Two	0		
No Age	0	Seine Length:	211

TOTAL HYBAMA CAUGHT: 3

Water-Quality Data

Air Temperature, Max:	11	Salinity:	0.18
Conductivity:	275.9	Secchi Depth:	2
DO:	9.25	Specific Conductance:	377.9
pH:	7.49	Water Temperature, Max:	10.9



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