

Brian Schlining

Week 50

- 500055 - VARS, M3/RS, DSG
 - On going support for DSG, VARS
 - <https://github.com/mbari-org/vars-annotation/issues/168>
 - <https://github.com/mbari-org/vars-feedback/issues/84>
- 901221 - Midwater Time Series
- 901618 - Pelagic-Benthic Coupling
- 902002 - FathomNet
- 902304 - Piscivore Cam
- 902306 - SINKER
- 902308 - M3/VARS for the Masses
 - Working on backend of annotation service: <https://github.com/mbari-org/annosaurus/issues/18>
- DQ2209 - Ocean AI 2
 - Meeting with Ocean Networks Canada to give overview of annotation/ML pipeline (with Kevin B and Kakani)
- Overhead
 - Updated Marine Imaging Workshop website at <https://miw2024.org/>
- Out of Office

Week 49

- 500055 - VARS, M3/RS, DSG
- 901221 - Midwater Time Series
- 901618 - Pelagic-Benthic Coupling
- 902002 - FathomNet
- 902304 - Piscivore Cam
- 902306 - SINKER
- 902308 - M3/VARS for the Masses
- DQ2209 - Ocean AI 2
- Overhead
- Out of Office

Week 48

- 500055 - VARS, M3/RS, DSG
 - Shout out to Kevin Barnard for setting up [Uptime Kuma](http://rocinate.shore.mbari.org:3001/status/m3-prod) for system monitoring.
<http://rocinate.shore.mbari.org:3001/status/m3-prod>
- 901221 - Midwater Time Series
- 901618 - Pelagic-Benthic Coupling
- 902002 - FathomNet
- 902304 - Piscivore Cam
- 902306 - SINKER
- 902308 - M3/VARS for the Masses
 - Added complete test coverage to [vampire-squid](#) (video asset manager) for Postgres and Sql Server databases. Added history/change tracking to vampire-squid databases. All APIs are available via

openapi. Because this update requires schema changes, Brian will work with IS to set up a migration plan to the shore and ships.

- DQ2209 - Ocean AI 2
 - Set up a production and development postgres database. There's a nightly cron job that generates a backup of the production db and loads it into the development db.
 - An NGINX proxy is set up for the CMS application. <https://ovai.mbari.org/cms/>
 - Some support to help [Ocean Networks Canada submit an image set](#) to FathomNet.
- Overhead
- Out of Office

Week 47

- 500055 - VARS, M3/RS, DSG
- 901221 - Midwater Time Series
- 901618 - Pelagic-Benthic Coupling
- 902002 - FathomNet
- 902304 - Piscivore Cam
- 902306 - SINKER
- 902308 - M3/VARS for the Masses
- DQ2209 - Ocean AI 2
- Overhead
- Out of Office

Week 46

- 500055 - VARS, M3/RS, DSG
 - Fixed an issue with viewing raw ML output in Sharktopoda where data sets with 100,000s of localizations would hang.
 - Rewrote the ML loader, then loaded [ML-generated annotations for dive V4464](#) into VARS.
 - Fixed [the map base layer](#) used in the [prototype Deep-sea Guide](#). ESRI retired the old one and turned it off.
 - Investigating methods of using full ML track data to help annotators visualize and correct annotations.
 - Added basic documentation for [Sharktopoda](#), and [vcr4j-remote](#).
 - Switching doc generator to scaladoc for [raziel](#) and [m3-support](#)
- 901221 - Midwater Time Series
- 901618 - Pelagic-Benthic Coupling
 - Setting up a [non-core project for Station M data](#) to be included in the main VARS database.
- 902002 - FathomNet
- 902304 - Piscivore Cam
- 902306 - SINKER
- 902308 - M3/VARS for the Masses
- DQ2209 - Ocean AI 2
 - Deployed a model Lonny trained on all of FathomNet's data, known as the 'meg[alodon]' detector externally for testing at <http://fathomnet.org:7777/>
 - Meeting with Paul Rogers to discuss CMS development.
 - Setting up VM in DMZ to support CMS app and a postgres db.
 - OVAI team and I met with Ocean Networks Canada to discuss collaborations with FathomNet.
- Overhead
 - Working with Kakani and Bill to get the marine imaging workshop rolling along.
 - Started discussions with Jennifer Durden about setting up the science committee for the marine imaging workshop.
- Out of Office

Week 45

- 500055 - VARS, M3/RS, DSG
 - Working on a permanent archive for one off machine learning runs on video. Set up a [plutus](#) instance to archive output from the local ML service; both of which are running on maximilian (a GPU box). ATM, ML output will be stored in titan:/DeepSea-AIs
 - Added [code](#) to allow for more types of filters when viewing ML output in Sharktopoda.
- 901221 - Midwater Time Series
- 901618 - Pelagic-Benthic Coupling
- 902002 - FathomNet
 - Data fixes to support latest model training.
- 902304 - Piscivore Cam
- 902306 - SINKER
- 902308 - M3/VARS for the Masses
 - Restructured the video asset manager, [vampire-squid](#), to allow for database specific integration tests.
- DQ2209 - Ocean AI 2
- Overhead
 - The website for the 5th Marine Imaging Workshop at <https://miw2024.org/> is up and running. Make sure you share it widely!
 - Involved in video shoot Wednesday.
 - Purged old logs from titan:/devops. You can too ... script is [here](#)
- Out of Office

Week 44

- 500055 - VARS, M3/RS, DSG
 - Create apps to view ML localizations directly in Sharktopoda for different use cases including: view all, filter by confidence, view as loaded into vars. Source code is at:
 - <https://github.com/mbari-org/m3-support/tree/main/src/main/scala/org/mbari/m3/support/apps/mlviz>
 - <https://github.com/mbari-org/m3-support/tree/main/src/main/scala/org/mbari/m3/support/etc/yolo>
- 901221 - Midwater Time Series
- 901618 - Pelagic-Benthic Coupling
- 902002 - FathomNet
- 902304 - Piscivore Cam
- 902306 - SINKER
- 902308 - M3/VARS for the Masses
- DQ2209 - Ocean AI 2
 - Investigating a [bug](#), introduced during an upgrade, that broke the endpoint for modifying image data. This is a blocker for generating local training sets for ML.
 - Bug is fixed.
 - Running `validate-images` to populate width and height on images with missing dimensions.
 - Added support for [integration testing against SQL Server on M1 macs](#). (tl;dr SQL Server does not run native on M1 via docker, but Azure SQL Edge does)
- Overhead
- Out of Office
 - Oct 30 - ??? - **Jury duty**

Week 43

- 500055 - VARS, M3/RS, DSG
 - Upgraded [Charybdis](#) from [helidon](#) 3 to [4](#)
 - Updated [Raziel](#) to accommodate changes to charybdis

- More testing comparing framecapture/seek time using ffmpeg vs sharktopoda. Getting identical results is a critical feature for machine learning training.
- 901221 - Midwater Time Series
- 901618 - Pelagic-Benthic Coupling
- 902002 - FathomNet
- 902304 - Piscivore Cam
 - Updated the code that migrates and renames videos from piscivore's staging area to the permanent archive on titan:/m3. It will now intentionally fail on a video if it can't extract a timestamp from the video's metadata.
- 902306 - SINKER
- 902308 - M3/VARS for the Masses
 - Working on expanding database specific integration tests for [vampire-squid](#) and [annosaurus](#)
- DQ2209 - Ocean AI 2
- Overhead
 - Set up the web site for the 2024 Marine Imaging Workshop at <http://miw2024.org>, will turn on SSL later today. Thanks to Bill Kirkwood for putting together the web pages.
- Out of Office
 - Oct 30 - ??? - Jury duty

Week 42

- 500055 - VARS, M3/RS, DSG
 - New release of [Sharktopoda](#) video player that addresses issues [#50](#) and [#56](#) that deal with differences in frame number interpretation between ffmpeg and sharktopoda.
 - Wrote a fix for issue [#63](#) to sync i2MAP master and mezzanine video timestamps.
- 901221 - Midwater Time Series
- 901618 - Pelagic-Benthic Coupling
- 902002 - FathomNet
- 902304 - Piscivore Cam
- 902306 - SINKER
- 902308 - M3/VARS for the Masses
 - Added integration tests for target databases (Derby, SQL Server, Oracle, Postgresql) to the video asset manager.
- DQ2209 - Ocean AI 2
- Overhead
- Out of Office
 - Sep 20 - Oct 10 - Working remotely
 - Oct 11 - 13 - Out of office traveling

Week 41

- 500055 - VARS, M3/RS, DSG
 - Investigating bulk edit/update performance issues with annosaurus. Starting heavy lift from eclipselink to hibernate. Will also be adding hibernate envers for history change tracking.
 - Started prototype to aggregate i2MAP master and mezzanine files which are offset by 1 second.
- 901221 - Midwater Time Series
- 901618 - Pelagic-Benthic Coupling
- 902002 - FathomNet
- 902304 - Piscivore Cam
- 902306 - SINKER
- 902308 - M3/VARS for the Masses
 - Adding integration tests to vampire-squid, video asset manager

- DQ2209 - Ocean AI 2
- Overhead
- Out of Office
 - Sep 20 - Oct 10 - Working remotely
 - Oct 11 - 13 - Out of office traveling

Week 40

- 500055 - VARS, M3/RS, DSG
 - Investigating performance issues with bulk updates made to annotations (See [annosaurus](#))
 - Met with Paul Rogers to discuss differences in seek time into a video between ffmpeg and sharktopoda. This is a key issue to resolve for the machine learning pipelines.
 - IS setup a new GPU box for our group to use for local ML video processing.
- 901221 - Midwater Time Series
- 901618 - Pelagic-Benthic Coupling
- 902002 - FathomNet
- 902304 - Piscivore Cam
- 902306 - SINKER
- 902308 - M3/VARS for the Masses
 - Continuing work on adding docs/tests/apidocs to the video asset manager, [vampire-squid](#). Switched from [eclipselink](#) to [hibernate](#) as a JPA provider due to lazy loading issues. Implementing [cross database](#) testing (SQL Server, Postgresql, Oracle, Derby) using testcontainers. Postgres' [handling of UUIDs is so weird](#).
- DQ2209 - Ocean AI 2
 - Discussion with the team and Paul Rogers to have Paul start work on the games' [content management system](#).
- Overhead
- Out of Office
 - Sep 20 - Oct 13 - Working remotely

Week 39

- 500055 - VARS, M3/RS, DSG
 - Looking into dropping use of web frameworks for front end development of the DSG. Doing testing and research using web components, and straight javascript/html/css.
 - Iron Mountain video imports. We're almost done!!!! Except for a few problem tapes, all ROV video tapes have been converted to video files and registered in our video asset manager.
- 901221 - Midwater Time Series
 - Added video resolutions in the video asset manager for i2MAP videos records that were missing those.
 - Ported some [midwater transect analysis apps](#) from the old VARS database to the current M3 db.
- 901618 - Pelagic-Benthic Coupling
- 902002 - FathomNet
- 902304 - Piscivore Cam
- 902306 - SINKER
- 902308 - M3/VARS for the Masses
 - The video asset manager, vampire-squid, is being updated to address some performance issues, remove outdated frameworks, and add openapi docs. The in-progress branch is [feature/vars4m](#).
- DQ2209 - Ocean AI 2
 - Pushed VARS data to FathomNet; the most recent push was about 24,000 images.
 - Fix to a newly introduced bug that caused requests for data pages to drop the `totalCount` field.
 - Having discussions with NOAA about the proposed [data hosting pipeline](#) for FathomNet
- Overhead

- Attended NOAA's online machine learning workshop.
- Out of Office
 - Sep 20 - Oct 13 - Working remotely
 - Bumped into Kurt Buck at the Port Angeles farmer's market.

Week 38

- 500055 - VARS, M3/RS, DSG
- 901221 - Midwater Time Series
- 901618 - Pelagic-Benthic Coupling
- 902002 - FathomNet
- 902304 - Piscivore Cam
- 902306 - SINKER
- 902308 - M3/VARS for the Masses
- DQ2209 - Ocean AI 2
- Overhead
- Out of Office
 - Sep 20 - Oct 13 - Working remotely

Week 37

- 500055 - VARS, M3/RS, DSG
 - Completed audit of existing and new data embargoes. Applied the embargoes to [FathomNet](#) as well as the external [DSG](#) and [KB](#) and cleaned up any [escapees](#).
 - Starting working with Paul Rogers to address issues with [video frame alignment](#) in Sharktopoda. This is needed for the video lab's machine learning/human-in-the-loop workflows.
 - Ran a sanity check with Kent Headley's latest changes to [libbmagic](#) against the 4k camera on the RC.
- 901221 - Midwater Time Series
- 901618 - Pelagic-Benthic Coupling
- 902002 - FathomNet
- 902304 - Piscivore Cam
- 902306 - SINKER
- 902308 - M3/VARS for the Masses
- DQ2209 - Ocean AI 2
 - Upgraded the fathomnet-rest-api from [Micronaut 3 to 4](#).
 - Deleting some types of data was failing (not cascading properly). This is fixed now.
 - Created a copy of a subset of the FathomNet database, with non-public info removed, for Angus Forbes, a researcher at Purdue. His team is going to look at using LLMs to generate SQL from natural language queries.
 - Working on functional requirements for the FathomNet/MSU/NOAA [image archiving pipeline](#).
 - Modified the [vars-to-fathomnet](#) import pipeline to address a number of [data sync challenges](#). Canvassed the video lab to verify that the current crop of localizations in VARS are ready for export to FathomNet. I'll be running the export today.
- Overhead
 - Sat in for Kevin G for the phase 2 resource leveling.
- Out of Office
 - Sep 20 - Oct 13 - Working remotely

Week 36

- 500055 - VARS, M3/RS, DSG
 - Still working through [embargo issues](#)
 - Iron Mountain video imports

- 901221 - Midwater Time Series
- 901618 - Pelagic-Benthic Coupling
- 902002 - FathomNet
 - [Upgraded back end from Micronaut 3 to 4.](#)
- 902304 - Piscivore Cam
- 902306 - SINKER
- 902308 - M3/VARS for the Masses
- DQ2209 - Ocean AI 2
- Overhead
 - Phase 2 resource leveling
- Out of Office
 - Sep 20 - Oct 13 - Working remotely

Week 35

- 500055 - VARS, M3/RS, DSG
 - Reviewing changes to external data embargoes and implementing them.
 - Iron Mountain video imports. We're almost done!!!!
- 901221 - Midwater Time Series
- 901618 - Pelagic-Benthic Coupling
- 902002 - FathomNet
 - [Migrating to Micronaut 4](#)
 - Meeting with WoRMs team to discuss ML image analysis and integration.
 - Meeting to review requirements for game content management system.
- 902304 - Piscivore Cam
 - Investigating issues with metadata extraction from Piscivore videos.
- 902306 - SINKER
- 902308 - M3/VARS for the Masses
- DQ2209 - Ocean AI 2
- Overhead
 - Proposals
- Out of Office
 - Sep 20 - Oct 13 - Working remotely

Week 34

- 500055 - VARS, M3/RS, DSG
- 901221 - Midwater Time Series
- 901618 - Pelagic-Benthic Coupling
- 902002 - FathomNet
- 902304 - Piscivore Cam
- 902306 - SINKER
- 902308 - M3/VARS for the Masses
- DQ2209 - Ocean AI 2
- Overhead
- Out of Office
 - Jul 28 - Aug 6 - Vacation
 - Aug 14 - 17 - Vacation
 - Aug 21 - 22 - Vacation

Week 33

- 500055 - VARS, M3/RS, DSG

- 901221 - Midwater Time Series
- 901618 - Pelagic-Benthic Coupling
- 902002 - FathomNet
- 902304 - Piscivore Cam
- 902306 - SINKER
- 902308 - M3/VARS for the Masses
- DQ2209 - Ocean AI 2
- Overhead
- Out of Office
 - Jul 28 - Aug 6 - Vacation
 - Aug 14 - 17 - Vacation
 - Aug 21 - 22 - Vacation

Week 32

- 500055 - VARS, M3/RS, DSG
 - Iron Mountain Video Imports
 - Meeting with Visceral to discuss deep-sea guide redesign
 - Investigating time [misalignments](#) between ffmpeg and sharktopoda.
 - Prototyping ideas for new VARS query web application
- 901221 - Midwater Time Series
- 901618 - Pelagic-Benthic Coupling
- 902002 - FathomNet
- 902304 - Piscivore Cam
- 902306 - SINKER
- 902308 - M3/VARS for the Masses
- DQ2209 - Ocean AI 2
 - Meeting to review [QSCP](#) “user journey”
- Overhead
- Out of Office
 - Jul 28 - Aug 6 - Vacation
 - Aug 14 - 17 - Vacation
 - Aug 21 - 22 - Vacation

Week 31

- 500055 - VARS, M3/RS, DSG
- 901221 - Midwater Time Series
- 901618 - Pelagic-Benthic Coupling
- 902002 - FathomNet
- 902304 - Piscivore Cam
- 902306 - SINKER
- 902308 - M3/VARS for the Masses
- DQ2209 - Ocean AI 2
- Overhead
- Out of Office
 - Jul 28 - Aug 6 - Vacation
 - Aug 14 - 17 - Vacation
 - Aug 21 - 22 - Vacation

Week 30

- 500055 - VARS, M3/RS, DSG

- 901221 - Midwater Time Series
- 901618 - Pelagic-Benthic Coupling
- 902002 - FathomNet
- 902304 - Piscivore Cam
- 902306 - SINKER
- 902308 - M3/VARS for the Masses
- DQ2209 - Ocean AI 2
- Overhead
- Out of Office
 - Jul 28 - Aug 6 - Vacation
 - Aug 14 - 17 - Vacation
 - Aug 21 - 22 - Vacation

Week 29

- 500055 - VARS, M3/RS, DSG
 - Continuing investigation of subtle framegrab/bounding box misalignments from different framecapture methods at mbari-org/vars-feedback#56.
 - We continue to be plagued by slow 4k framecapture on ships. Investigating at <https://github.com/mbari-org/vars-feedback/issues/58>.
 - Proposed a spec for very simple web services to process video files using volov5.
- 901221 - Midwater Time Series
- 901618 - Pelagic-Benthic Coupling
- 902002 - FathomNet
 - Met w/ [Magda Balazinska](#) to discuss their ML assisted video search research. Assembled a dataset of MBARI video and annotations for her students to test with.
- 902304 - Piscivore Cam
 - Set up applications that automate [moving/renaming piscivore files](#) from atlas:/M3_Staging to [titan:/M3/Projects/Piscivore](#) and [registering them](#) in MBARI's [video asset manager](#).
- 902306 - SINKER
- 902308 - M3/VARS for the Masses
- DQ2209 - Ocean AI 2
- Overhead
- Out of Office
 - Jul 28 - Aug 6 - Vacation
 - Aug 14 - 17 - Vacation
 - Aug 21 - 22 - Vacation

Week 28

- 500055 - VARS, M3/RS, DSG
 - Updated framecapture software on the Rachel Carson for the newly installed 4k Camera.
 - Upgraded VARS and all services on the Rachel Carson to better support the [large 4k framegrabs](#) which can be slow to capture.
 - Started working on spec for web services to be used to apply ML to individual video files.
 - Putting together [code](#) to probe [this issue \(#56\)](#) where different methods of framecapture return slightly different frames from the video. This is causing issues with ML bounding boxes being misaligned on images.
- 901221 - Midwater Time Series
- 901618 - Pelagic-Benthic Coupling
 - [Mondrian 1.1.2](#) was released. This is a bug fix release.

- Fixed [Coral Observatory image sets](#) that were registered in [vampire-squid](#) (video asset manager) with incorrect params.
- 902002 - FathomNet
 - Reviewed Eric Orenstein's medium article on [FathomNet 1.0](#).
- 902304 - Piscivore Cam
- 902306 - SINKER
- 902308 - M3/VARS for the Masses
- DQ2209 - Ocean AI 2
- Overhead
 - Proposals
 - Current stats on video asset data volume for the VARS proposal. Current estimate is 29,961 hours of video managed by the video lab. By platform:
 - Doc Ricketts: 8,619 hours
 - i2MAP: 200
 - Mini ROV: 519
 - Tiburon: 6,938
 - Ventana: 13,684
 - Tour for ROV summer camp group
- Out of Office
 - Jul 28 - Aug 6 - Vacation
 - Aug 14 - 17 - Vacation
 - Aug 21 - 22 - Vacation

Week 27

- 500055 - VARS, M3/RS, DSG
- 901221 - Midwater Time Series
- 901618 - Pelagic-Benthic Coupling
- 902002 - FathomNet
- 902304 - Piscivore Cam
- 902306 - SINKER
- 902308 - M3/VARS for the Masses
- DQ2209 - Ocean AI 2
- Overhead
- Out of Office
 - Jul 3 - 7 - Tentatively out of office
 - Jul 28 - Aug 6 - Vacation

Week 26

- 500055 - VARS, M3/RS, DSG
 - Iron Mountain video imports
 - [Investigating](#) bounding box mis-alignments on ML generated proposals.
- 901221 - Midwater Time Series
- 901618 - Pelagic-Benthic Coupling
 - [Released Mondrian v1.1.0](#) (VARS Image annotation app)
- 902002 - FathomNet
- 902304 - Piscivore Cam
 - The team fixed issues with time stamps on videos. Brian [ran a dry-run import](#) on the test video set.
 - Wrote quick proof-of-concept to quickly apply ML analysis for piscivore videos. ([auto-analyze.sc](#))
- 902306 - SINKER
- 902308 - M3/VARS for the Masses

- Working on [adding API docs](#) to vampire-squid
- DQ2209 - Ocean AI 2
 - Working on community features for FathomNet. See <https://fathomnet.org/testing> for the development site.
 - Investigation into supporting Chinese, Arabic, etc names in the FathomNet database. <https://github.com/fathomnet/fathomnet-rest-api/issues/18>
- Overhead
 - Tour for an ROV summer camp group.
- Out of Office
 - Jul 3 - 7 - Tentatively out of office
 - Jul 28 - Aug 6 - Vacation

Week 25

- 500055 - VARS, M3/RS, DSG
 - Iron Mountain video imports
- 901221 - Midwater Time Series
- 901618 - Pelagic-Benthic Coupling
 - Work on association editor in Mondrian
- 902002 - FathomNet
 - Testing version of FathomNet with new community features is at <https://fathomnet.org/testing>
- 902304 - Piscivore Cam
- 902306 - SINKER
- 902308 - M3/VARS for the Masses
- DQ2209 - Ocean AI 2
 - Improvements to activity stream APIs for FathomNet
- Overhead
 - Addressed issues with DARC's VARS installation
 - Soliciting assistance for organizing and running the 2024 Marine Imaging workshop
- Out of Office
 - Jun 16 - 20 - Out of office
 - Jul 28 - Aug 6 - Vacation

Week 24

- 500055 - VARS, M3/RS, DSG
 - Tweaked the M3 NGINX proxy server to display README files in directory listings. Added README's to all top level directories. This was needed as some scientists were unknowingly recalling many, many ProRes files from LTO by browsing to them through the web. See <http://m3.shore.mbari.org/videos/M3/master/>.
- 901221 - Midwater Time Series
 - Debugged an issue with some i2MAP annotations failing to merge with ancillary data. Root cause was i2MAP dives were ~~mismatched~~ creatively named on M3. [Added logic](#) to skip creative i2MAP names.
- 901618 - Pelagic-Benthic Coupling
 - Working on adding an association editor to [Mondrian](#) so users can add descriptive details to individual annotations.
- 902002 - FathomNet
- 902304 - Piscivore Cam
- 902306 - SINKER
- 902308 - M3/VARS for the Masses
- DQ2209 - Ocean AI 2

- Worked with Erin Butler at CVisionAI to enable FathomNet users to subscribe to topics of interest (such as types of animals, people or geographic regions) and view the activity stream for those topics.
- Overhead
 - For Jim Barry's lab, wrote [a small app to register images](#) in VARS from the Coral Observatory
 - Meet with Vineeth Balasubramanian to give an overview of how we are using machine learning to analyze video and images.
- Out of Office
 - Jun 16 - 20 - Out of office
 - Jul 28 - Aug 6 - Vacation

Week 23

- 500055 - VARS, M3/RS, DSG
- 901221 - Midwater Time Series
- 901618 - Pelagic-Benthic Coupling
 - Begun work on adding additional features requested by Jim Barry's lab to [Mondrian](#)
- 902002 - FathomNet
- 902304 - Piscivore Cam
- 902306 - SINKER
- 902308 - M3/VARS for the Masses
 - Working on removing technical debt from MBARI's video asset manager, [vampire-squid](#) and improving documentation. (It's been in use for about 7 years). Updates include the heavy lift from Scala 2 to 3 and from [javax.persistence](#) to [jakarta.persistence](#) packages. Started work adding API docs using [Tapir](#).
- DQ2209 - Ocean AI 2
- Overhead
 - Introduced and reviewed the new image annotation app, Mondrian, with Jim Barry's lab. Their intern will start using it soon.
 - Setting up a permanent image repository for the Coral Observatory and registering the images in VARS so they can be analyzed/annotated.
- Out of Office
 - Jun 16 - 20 - Out of office
 - Jul 28 - Aug 6 - Vacation

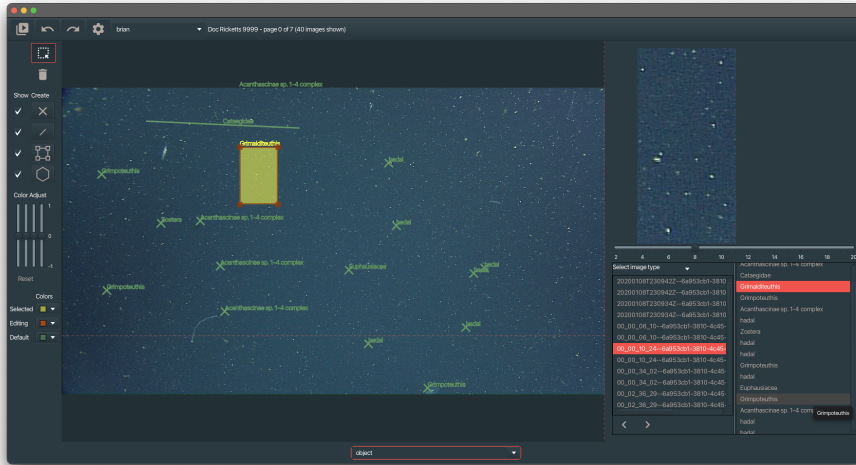
Week 22

- 500055 - VARS, M3/RS, DSG
- 901221 - Midwater Time Series
- 901618 - Pelagic-Benthic Coupling
 - Released windows builds of [Mondrian](#) and [VARS Annotation](#)
 - [Added automated image analysis](#) (using machine learning via [Pythia](#)) to Mondrian
- 902002 - FathomNet
- 902304 - Piscivore Cam
- 902306 - SINKER
- 902308 - M3/VARS for the Masses
- DQ2209 - Ocean AI 2
 - There were a [number of FathomNet releases last week](#). Added community features to the back end server allowing users to follow topics of interest (concepts, people, and geographic regions) and to retrieve an activity stream of those topics. Working on [email notifications](#) summarizing the topics a user follows. See [#54](#), [#65](#), and [#111](#)
- Overhead
- Out of Office
 - Jun 16 - 20 - Out of office

- Jul 28 - Aug 6 - Vacation

Week 21

- 500055 - VARS, M3/RS, DSG
- 901221 - Midwater Time Series
- 901618 - Pelagic-Benthic Coupling
 - Alpha version of the new image annotation application, [Mondrian](#), is ready for testing.



- 902002 - FathomNet
 - [New release](#) of the worms-server to address [issue #3](#)
- 902304 - Piscivore Cam
- 902306 - SINKER
- 902308 - M3/VARS for the Masses
- DQ2209 - Ocean AI 2
- Overhead
 - Helping the Coastal Research Institute ([CORI](#) in Egypt) spin up M3/VARS.
 - Updated [DARC's](#) VARS stack. Addressed an issue that was filling up their disk space.
- Out of Office
 - May 8 - 16 - Out of office
 - Jul 28 - Aug 6 - Vacation

Week 20

- 500055 - VARS, M3/RS, DSG
- 901221 - Midwater Time Series
- 901618 - Pelagic-Benthic Coupling
- 902002 - FathomNet
- 902304 - Piscivore Cam
- 902306 - SINKER
- 902308 - M3/VARS for the Masses
- DQ2209 - Ocean AI 2
- Overhead
- Out of Office
 - May 8 - 16 - Out of office
 - Jul 28 - Aug 6 - Vacation

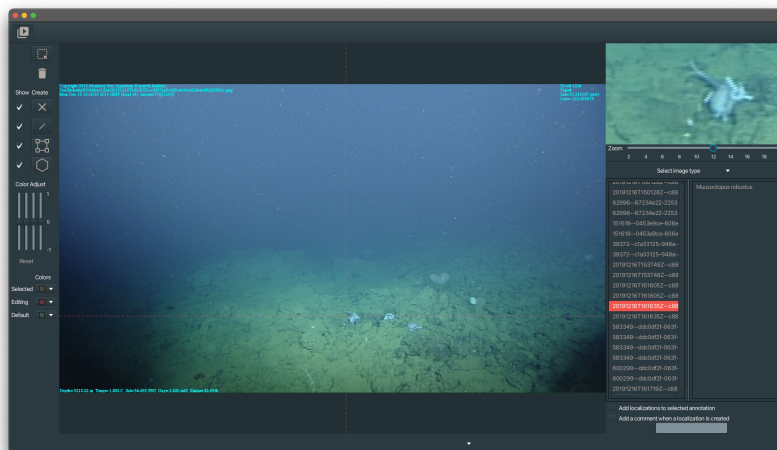
Week 19

- 500055 - VARS, M3/RS, DSG

- 901221 - Midwater Time Series
- 901618 - Pelagic-Benthic Coupling
 - Continuing work on the new image annotation application, [Mondrian](#).
- 902002 - FathomNet
 - Addressing some FathomNet issues.
 - With Kevin B, we've laid out an accelerated road map to complete [Beta 2.3](#) in June
- 902304 - Piscivore Cam
- 902306 - SINKER
- 902308 - M3/VARS for the Masses
- DQ2209 - Ocean AI 2
- Overhead
- Out of Office
 - May 8 - 16 - Out of office
 - Jul 28 - Aug 6 - Vacation

Week 18

- 500055 - VARS, M3/RS, DSG
 - Iron Mountain video imports
- 901221 - Midwater Time Series
- 901618 - Pelagic-Benthic Coupling
 - Work is progressing on the new image annotation application, [Mondrian](#).



- 902002 - FathomNet
 - Submitted an image collection to NOAA to test and develop a data archiving pipeline.
 - One of the podman containers had debug logging enabled which filled up the disk on eione.mbari.org (aka fathomnet.org). This has been fixed.
- 902304 - Piscivore Cam
- 902306 - SINKER
- 902308 - M3/VARS for the Masses
- DQ2209 - Ocean AI 2
- Overhead
 - [DARC](#) had issues with one of their VARS docker containers. This has been fixed.
 - Published, [commons](#), a library of shared [Java/Scala](#) utilities to Maven Central
- Out of Office
 - Apr 12 - Apr 18 - Out of office
 - May 8 - 16 - Out of office
 - Jul 28 - Aug 6 - Vacation

Week 17

- 500055 - VARS, M3/RS, DSG
 - Started working on the new DSG again. At this point, I'm mostly translating existing code used in the demo at <http://m3.shore.mbari.org/deepseaguide/> from Vue 2 to Vue 3. (Vue 2 reaches its [end of life this year](#))
- 901221 - Midwater Time Series
- 901618 - Pelagic-Benthic Coupling
 - Started work on a new image annotation application, [mondrian](#). Jim Barry's lab has an intern starting in June that can use this application, so Brian is trying to get this done ASAP.
 - Made some small changes to annosaurus to better support image annotation applications. These changes have been published in version [0.14.1](#) and [0.14.3](#)
- 902002 - FathomNet
- 902304 - Piscivore Cam
 - Piscivore video staging and video asset manager registration code is ready. Waiting for a network share fix in order to finalize the setup.
- 902306 - SINKER
- 902308 - M3/VARS for the Masses
 - [Testing out changes](#) to remove technical debt from vampire-squid.
- DQ2209 - Ocean AI 2
- Overhead
 - Started gathering info from past Marine Imaging workshops to help organize one in 2024
 - With Bill Kirkwood, toured the Monterey Conference Center as a possible venue for the 2024 Marine Imaging Workshop
- Out of Office
 - Apr 12 - Apr 18 - Out of office
 - May 8 - 16 - Out of office
 - Jul 28 - Aug 6 - Vacation

Week 16

- 500055 - VARS, M3/RS, DSG
- 901221 - Midwater Time Series
- 901618 - Pelagic-Benthic Coupling
- 902002 - FathomNet
- 902304 - Piscivore Cam
- 902306 - SINKER
- 902308 - M3/VARS for the Masses
- DQ2209 - Ocean AI 2
- Overhead
- Out of Office
 - Apr 12 - Apr 18 - Out of office
 - May 8 - 16 - Out of office
 - Jul 28 - Aug 6 - Vacation

Week 15

- 500055 - VARS, M3/RS, DSG
 - Iron Mountain video imports
 - Closed out contract with Paul Rogers for [Sharktopoda](#) development.
- 901221 - Midwater Time Series
- 901618 - Pelagic-Benthic Coupling
 - Started scaffolding a dedicated image annotation application that integrates with VARS.

- 902002 - FathomNet
 - The FathomNet server VM has been upgraded to 4CPU and 8GB RAM.
 - Added community features to the FathomNet API. (Find [observations](#) and [verifications](#) by users, List [badges](#) for a user)
 - Met with OVAI team to debug SQL issues in [fastapi-qcsp](#).
 - Tested and deployed new release of the [FathomNet web UI](#) (1.0.3)
- 902304 - Piscivore Cam
 - Spun up a new model server with a fish detector at <http://perceptron.shore.mbari.org:8082/>
- 902306 - SINKER
- 902308 - M3/VARS for the Masses
- DQ2209 - Ocean AI 2
 - Met with OVAI team to present details about MBARI's video annotation workflows.
 - Presented MBARI's media and video asset management to Aurali Dade (NSF).
- Overhead
 - Responded to IS' request for info for a security audit for servers in MBARI's DMZ.
- Out of Office
 - Apr 12 - Apr 17 - Out of office
 - May 8 - 16 - Out of office
 - Jul 28 - Aug 6 - Vacation

Week 14

- 500055 - VARS, M3/RS, DSG
 - Working off some [technical debt](#) on the [vampire-squid](#) microservice (MBARI's video asset manager)
 - Iron Mountain video imports
 - Worked with Neil to troubleshoot disk issues on our database server, Perseus
- 901221 - Midwater Time Series
- 901618 - Pelagic-Benthic Coupling
- 902002 - FathomNet
 - In progress: replacing the default taxonomy provider. Currently the default in FathomNet is MBARI's knowledgebase but we're switching to our [fast worms server](#). Notable changes includes [limiting searchable terms](#) to WoRMS taxa branches that exist as annotations in FathomNet and switching the browsable taxa tree to WoRMS.
- 902304 - Piscivore Cam
 - Working though staging piscivore videos with ambiguous timestamps to our video asset manager.
- 902306 - SINKER
- 902308 - M3/VARS for the Masses
- DQ2209 - Ocean AI 2
 - Meeting with NSF project manager to demonstrate MBARI's video annotation and ML tools.
- Overhead
 - Met with Bill Kirkwood and Kakani to discuss hosting a Marine Imaging Workshop in 2024.
- Out of Office
 - Mar 28 - Apr 3 - Out of office
 - May 8 - 16 - Out of office
 - Jul 28 - Aug 6 - Vacation

Week 13

- 500055 - VARS, M3/RS, DSG
 - [Refactoring vampire-squid](#) to remove some technical debt. (it's about seven years old now)
- 901221 - Midwater Time Series
- 901618 - Pelagic-Benthic Coupling

- 902002 - FathomNet
 - Updated FathomNet's firebase service (from Google) from a free tier to a paid tier that supports OpenID Connect.
 - Met with NOAA team members to start implementation of hosting/archiving user contributed images. Also discussed archiving versioned snapshots of the FathomNet database.
 - Met with Squiddle developers to continue the discussion of better FathomNet/Squiddle interoperation.
 - Revisiting [VARS to FathomNet export](#).
- 902304 - Piscivore Cam
 - Wrote [an app](#) to [stage Piscivore video](#) to M3.
 - [Wrote code](#) to [register Psicivore videos](#) with VARS.
- 902306 - SINKER
- 902308 - M3/VARS for the Masses
- DQ2209 - Ocean AI 2
- Overhead
- Out of Office
 - Mar 28 - Apr 3 - Out of office
 - May 8 - 16 - Out of office
 - Jul 28 - Aug 6 - Vacation

Week 12

- 500055 - VARS, M3/RS, DSG
 - Resolved some [issues](#) with a large machine learning data import into VARS.
 - Iron Mountain video imports
 - Set up [Pythia](#), a new machine learning inference service [internally](#) and [externally](#). Brian also released Pythia as open source. Pythia is integrated into VARS.
 - Upgraded VARS on the Mini ROV. Worked with Kent Headley to sort out a new seg fault with the [framecapture server](#).
 - Ran integration testing on the new SQL Server 2022 servers, Venus and Rhea, to verify that existing applications and services work with the server upgrades.
- 901221 - Midwater Time Series
- 901618 - Pelagic-Benthic Coupling
- 902002 - FathomNet
 - Wrestling with the "best" way to present search autocomplete. See <https://github.com/fathomnet/fathomnet-web-ui/pull/5>
 - Revisiting work on [resolving the import from VARS to FathomNet](#). The data pipeline was broken due to an ["out of band" data load into VARS](#) from an ML import.
- 902304 - Piscivore Cam
 - Working out the video archiving workflow with Jared
- 902306 - SINKER
- 902308 - M3/VARS for the Masses
- DQ2209 - Ocean AI 2
- Overhead
 - Peter Walker updated the docker driver on m3, nexus, portal, singularity, and quasar. Brian reloaded the docker containers and restarted all services.
 - Virtually attended Oracle's [DevLive Java day](#).
- Out of Office
 - Mar 28 - Apr 3 - Out of office
 - May 8 - 16 - Out of office
 - Jul 28 - Aug 6 - Vacation

Week 11

- 500055 - VARS, M3/RS, DSG
 - There's a new share at titan:/M3_ML for archiving machine learning models used for analysis by the video lab.
 - Created a new service, <https://github.com/mbari-org/pythia>, for applying yolov5 inference to images. This service is a replacement for <https://github.com/mbari-org/keras-model-server-fast-api>
- 901221 - Midwater Time Series
- 901618 - Pelagic-Benthic Coupling
- 902002 - FathomNet
- 902304 - Piscivore Cam
- 902306 - SINKER
- 902308 - M3/VARS for the Masses
- DQ2209 - Ocean AI 2
- Overhead
 - Met with Sara Beery and gave a tour of MBARI's video lab, annotation and image ML tools.
 - Met with Kakani and Bill Kirkwood to discuss hosting a Marine Imaging Workshop in 2024
- Out of Office
 - May 8 - 16 - Out of office
 - Jul 28 - Aug 6 - Vacation

Week 10

- 500055 - VARS, M3/RS, DSG
 - Ongoing Iron Mountain video imports from our video tapes.
 - The machine running the ML model server used by VARS had a RAID failure. This service has been very popular with the video lab, so Brian moved the service to a temporary machine. Details [here](#).
 - Started [investigation into simplifying the ML model server](#) (written by CVisionAi). The service currently has a [complicated software stack](#) that could be greatly simplified.
- 901221 - Midwater Time Series
- 901618 - Pelagic-Benthic Coupling
- 902002 - FathomNet
 - [Integrated the equipment/geological features branches](#) of the VARS knowledge-base into our [WoRMs server](#). These branches will get updated every month when we sync with [WoRMS](#).
 - Working on tasks in the [beta-2.3 roadmap](#).
 - Code review of Genevieve Patterson's fathomnet-qscp service.
- 902304 - Piscivore Cam
 - Met with Jared and Lonny to discuss video management for Piscivore. The video archive for these videos will be on titan:/M3/Projects/Piscivore
- 902306 - SINKER
- 902308 - M3/VARS for the Masses
- DQ2209 - Ocean AI 2
- Overhead
 - Met with [Timm Schoening](#) and [Jennifer Durden](#) to discuss details about forming a formal Marine Imaging Society. Brian brought them up to date with the formation of an IEEE technical committee on Marine Imaging (with the helping hand of Bill Kirkwood).
 - IS will be upgrading the production databases from SQL Server 2016 to SQL Server 2022. Reviewed the release notes for potential upgrade problems. The most notable is that [all database connections will be encrypted](#), this might break existing applications. Neil will set up a testing database at foggy.shore.mbari.org to help with sanity checks.
- Out of Office
 - Feb 27 - Mar 3 - Vacation (Backpacking Haleakala so no internet)

- May 8 - 16 - Out of office
- Jul 28 - Aug 6 - Vacation

Week 9

- 500055 - VARS, M3/RS, DSG
- 901221 - Midwater Time Series
- 901618 - Pelagic-Benthic Coupling
- 902002 - FathomNet
- 902304 - Piscivore Cam
- 902306 - SINKER
- 902308 - M3/VARS for the Masses
- DQ2209 - Ocean AI 2
- Overhead
- Out of Office
 - Feb 27 - Mar 3 - Vacation (Backpacking Haleakala so no internet)
 - Jul 28 - Aug 6 - Vacation

Week 8

- 500055 - VARS, M3/RS, DSG
 - VARS Bug hunt to address outstanding issues. There were [two new VARS releases](#) last week.
 - [Sharktopoda 2.0.3](#) was released. This addresses feature requests from the video lab.
- 901221 - Midwater Time Series
- 901618 - Pelagic-Benthic Coupling
- 902002 - FathomNet
 - FathomNet workshop
- 902304 - Piscivore Cam
- 902306 - SINKER
- 902308 - M3/VARS for the Masses
- DQ2209 - Ocean AI 2
- Overhead
- Out of Office
 - Feb 27 - Mar 3 - Vacation (Backpacking Haleakala so no internet)
 - Jul 28 - Aug 6 - Vacation

Week 7

- 500055 - VARS, M3/RS, DSG
 - The last round of server patches broke the docker daemons on a few servers. Worked with IS to get those back up.
 - Updated the vars-kb and vars-query apps to build on Java 19.
 - Working with Paul Rogers on [improvements to Sharktopoda based](#) on video lab feedback.
 - Released [VARS Annotation 1.4.8](#). This release replaces the [JavaFX TableView](#) component with a [Swing-based one](#) to work around long-standing, hard-to-squash bugs: [#128](#), [#129](#).
 - With the recent major changes in VARS. Brian is running through a bug hunt exercise to chase down edge cases.
 - Testing out a timeline view to VARS.
- 901221 - Midwater Time Series
- 901618 - Pelagic-Benthic Coupling
- 902002 - FathomNet
 - Much work on laying out the [FathomNet beta 2.3 roadmap](#).
 - [Work on integrating branches of MBARI's knowledgebase with the WoRMS concept tree](#).

- Prepping for next week's FathomNet workshop.
- Met with the new Ocean Vision AI program manager, Tapas Dwivedi.
- 902304 - Piscivore Cam
- 902306 - SINKER
- 902308 - M3/VARS for the Masses
- DQ2209 - Ocean AI 2
- Overhead
- Out of Office
 - Feb 27 - Mar 3 - Vacation (Backpacking Haleakala so no internet)
 - Jul 28 - Aug 6 - Vacation

Week 6

- 500055 - VARS, M3/RS, DSG
 - Iron Mountain video imports. Rough estimate of work completed to date: 4,067 of 6,668 dives converted from tape to video.
 - Updated the `annotations\_legacy` view in the M3_ANNOTATIONS database so Steve Haddock can use [beholder](#) to grab ad hoc images of annotations.
 - Milestone: [Loaded the first series of dives](#) analyzed by machine learning into VARS. 16 dives (D1372 - D1389) were processed, producing 84,687 localized annotations. These annotations are all tagged with the group 'ROV:pending-verifications'. Addressed issues in the new tooling used for working with these annotations in VARS.
 - [Develop tools to preview data in Sharktopoda](#) for both the full ML output (which is very large) and the subset of data that would be imported into VARS.
 - The [TableView](#) control used in VARS is thoroughly broken. (Due to changes introduced by the JavaFX library developers over time). [Brian is starting a rewrite](#) of a table control to work around these issues. Related issues are: [here](#), [here](#), and [here](#).
 - [Rewrote the code that syncs dive information into VARS](#). The previous version was written before we started the video conversion process (Iron Mountain). The amount of new video files was overwhelming the app.
- 901221 - Midwater Time Series
- 901618 - Pelagic-Benthic Coupling
- 902002 - FathomNet
 - [Working with NOAA on a data archiving workflow](#) to allow external labs to publish images to FathomNet. Also providing feedback to NOAA on organizing their own data before submitting it to FathomNet.
 - Met with Squiddle developers to address features needed for them to support FathomNet integration. [Added the first round of requested features](#).
 - Updated the FathomNet API with changes to support Squiddle. Updated the FathomNet web UI with [features added by CVisionAI developers](#).
 - Preparing for the upcoming FathomNet workshop.
- 902304 - Piscivore Cam
- 902306 - SINKER
- 902308 - M3/VARS for the Masses
- DQ2209 - Ocean AI 2
- Overhead
- Out of Office
 - Feb 27 - Mar 3 - Vacation (Backpacking Haleakala so no internet)
 - Jul 28 - Aug 6 - Vacation

Week 5

- 500055 - VARS, M3/RS, DSG
 - Working on the final stage of the ML pipeline ... [pushing data to VARS](#). Working though integration testing now.
 - Reviewed M3RS documentation for video lab
 - Fixed [frame advance issue in VARS](#) for the new Sharktopoda.
 - Added database indexes for the deepsea-ai database
 - Restored services that tanked after the power outage.
- 901221 - Midwater Time Series
 - With Mike and Rob, [resolved issues](#) with the nav/ctdo data for i2MAP 20200210
- 901618 - Pelagic-Benthic Coupling
- 902002 - FathomNet
 - Met with Megan Cromwell (NOAA) to walk through data archiving at NOAA.
 - Packaged an image set for testing and developing a workflow to store images with NOAA's long term data archive.
- 902304 - Piscivore Cam
- 902306 - SINKER
- 902308 - M3/VARS for the Masses
- DQ2209 - Ocean AI 2
- Overhead
 - Discussions with Bill Kirkwood about forming an IEEE Marine Imaging Technical Committee.
 - Prepping [commons library for publication to maven central](#).
- Out of Office
 - Feb 27 - Mar 3 - Vacation (Backpacking Haleakala so not internet)

Week 4

- 500055 - VARS, M3/RS, DSG
 - The latest [Sharktopoda video player](#) is now running in the video lab for evaluation with VARS Annotation. This allows visualization, creation, and editing of localizations created by hand or via machine learning directly on video.
 - Worked through Apple's latest code signing and notarization requirements for both [Sharktopoda](#) and [VARS Annotation](#).
 - Dealt with the usual Iron Mountain video imports.
 - [Started work](#) on updating the import of ML generated annotations into VARS to work with the latest version of the deepsea-ai graphql API.
 - [Imported Mini ROV annotations](#) for dives M0180 through M0192 into the main VARS database.
 - Fixed a bug in VARS that [prevented the frame-advance feature](#) in a shuttle controller from working with the new Sharktopoda.
- 901221 - Midwater Time Series
 - Ran merge between AUV metadata and VARS for i2MAP deployments. Investigating why this task is failing when run from a cron job on quasar.
- 901618 - Pelagic-Benthic Coupling
- 902002 - FathomNet
 - FathomNet has an automated task that notifies image owners when an image link is broken. [Fixed a bug](#) so that notifications will stop being sent when the owner fixes the link.
 - [Staged labeled images](#) to an external server for use in a FathomNet/Kaggle competition.
- 902304 - Piscivore Cam
- 902306 - SINKER
- 902308 - M3/VARS for the Masses
 - Starting work on adding auto-generated OpenAPI docs to [vampire-squid](#)

- DQ2209 - Ocean AI 2
- Overhead
 - Wrote 2023 work plan
 - Meeting with Jennifer Durden and Timm Schoening about forming a Marine Imaging Society
- Out of Office
 - Feb 27 - Mar 3 - Vacation (Backpacking Haleakala so not internet)

Week 3

- 500055 - VARS, M3/RS, DSG
 - Released [VARS Annotation 1.4.3](#). This includes support for localizations of annotations directly on video using [Sharktopoda 2](#)
 - This release surfaced some issues with Sharktopoda 2. Investigating those.
 - Sharktopoda 2 requires Mac Ventura. With every new release of macOS, Apple changes the signing requirements for applications. If these requirements aren't met, Apple makes it extremely difficult for users to start the apps. Ventura continues this tradition. Brian is working with IS to get the signing and notarizing certificates needed to meet Apple's security requirements for both Sharktopoda and VARS Annotation.
- 901221 - Midwater Time Series
- 901618 - Pelagic-Benthic Coupling
- 902002 - FathomNet
 - Meeting w/ Kerry Howell to discuss adding an API to [Smarter-id](#) to allow FathomNet to use it as a naming service.
- 902304 - Piscivore Cam
- 902306 - SINKER
- 902308 - M3/VARS for the Masses
- DQ2209 - Ocean AI 2
- Overhead
- Out of Office
 - Feb 27 - Mar 3 - Vacation (Backpacking Haleakala so not internet)

Week 2

- 500055 - VARS, M3/RS, DSG
- 901221 - Midwater Time Series
- 901618 - Pelagic-Benthic Coupling
- 902002 - FathomNet
- 902304 - Piscivore Cam
- 902306 - SINKER
- 902308 - M3/VARS for the Masses
- DQ2209 - Ocean AI 2
- Overhead
- Out of Office
 - Jan 3 - 11 - Vacation
 - Feb 27 - Mar 3 - Vacation (Backpacking Haleakala so not internet)

Week 1

- 500055 - VARS, M3/RS, DSG
 - First iteration of new [Sharktopoda](#) completed and released to the video lab. This allows localization/annotation directly on a video.
 - New Sharktopoda has been integrated with [VARS Annotation 1.4.0-rc8](#)

- Released my first library to maven central. [Vcr4j](https://repo1.maven.org/maven2/org/mbari/vcr4j/), which provides the integration between VARS and Sharktopoda (among other things), has been published to <https://repo1.maven.org/maven2/org/mbari/vcr4j/>
- 901221 - Midwater Time Series
- 901618 - Pelagic-Benthic Coupling
- 902002 - FathomNet
- 902304 - Piscivore Cam
- 902306 - SINKER
- 902308 - M3/VARS for the Masses
- DQ2209 - Ocean AI 2
- Overhead
- Out of Office
 - Jan 3 - 11 - Vacation
 - Feb 27 - Mar 3 - Vacation (Backpacking Haleakala so not internet)