NPRB2301 Sample and Data Update

February 12, 2025

This report summarizes the samples available for NPRB 2301, their status and the status of laboratory processes. Updates will be made available whenever significant updates to the sample database or analytical data become available.

Version Notes

- NOSAMS AMS 14C results from the training layers are now available.
- Another batch of layers sent to NOSAMS for AMS.
- First batch of layers for stable isotopes sent to Stanford lab.

Links and Resources

- github repo (public)
- Research Workspace (password protected)
- Google Folder (access controlled)

Specimen, Sample and Layer Summaries

- Each animal has a specimen_ID. The exception is spiny dogfish embryos, which are considered samples taken of the adult.
- Each eye, embryo, spine, etc. has a unique sample_id, which links back to the specimen_id that that sample was taken from.
- Each eye is further separated into layers and each layer_id links back to the sample_id (and thus, specimen_id).

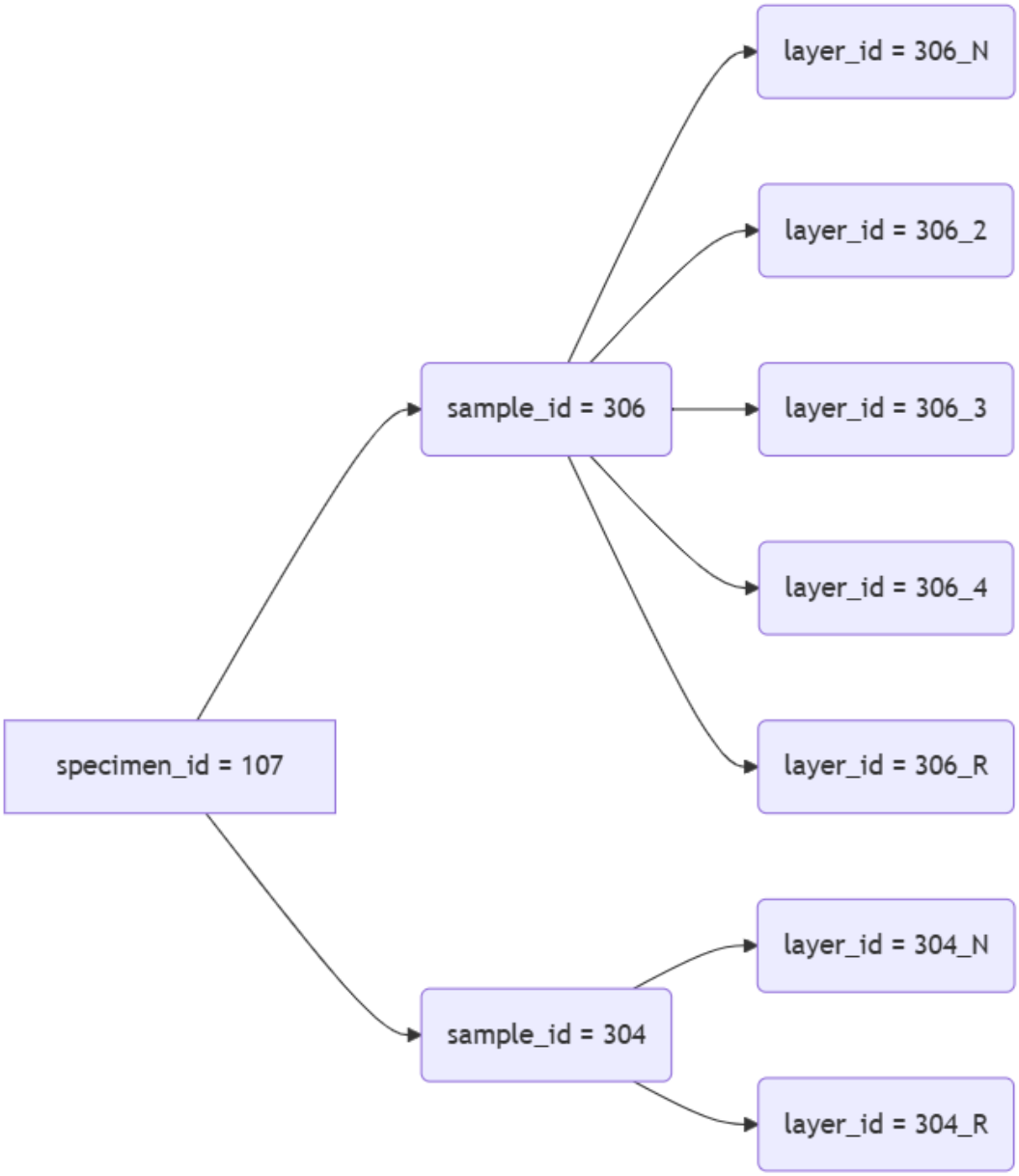


Figure 1: Specimens to samples to layers flow chart

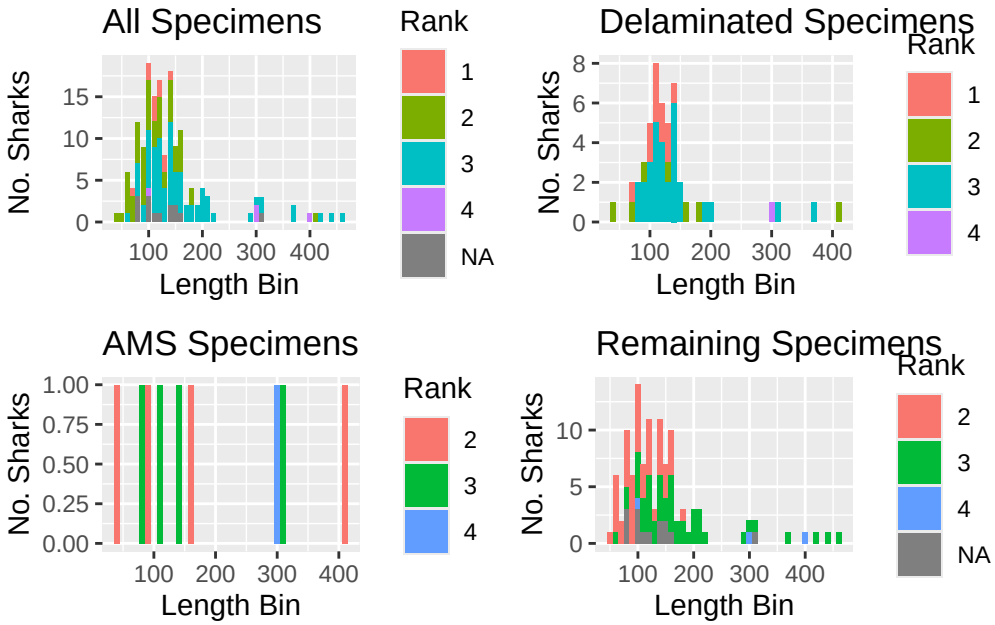
Pacific sleeper sharks

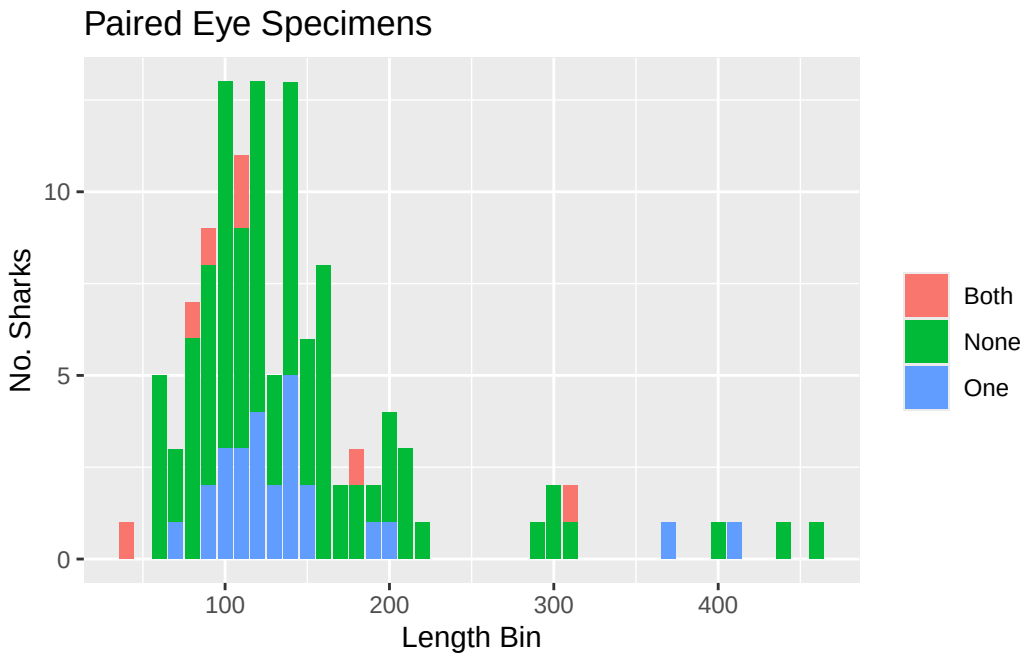
The below table only includes specimens with both length and haul data. There are some samples without haul data, and some without length. As data gaps get filled in, these numbers

will change. Please request any other data breakdowns for future reports.

N PSS	N PSS eyes	N PSS Delaminated	N PSS Layers
137	256	72	301

For the purposes of the below graphs, all unknown length types are treated as Total Length until we resolve how to determine that.





Spiny dogfish

N SD	N SD with full data	N SD available	N SD with samples but no length
22	9	5	8

There are two concerns with spiny dogfish samples:

1. Four spiny dogfish were processed before we identified potential contaminations and considered not available, however are included in the total number of spiny dogfish.
2. A subset of spiny dogfish do not have length or specific haul data (8). All of these samples do have both eyes and embryos and may still be useful for analyses between mother/offspring.

No spiny dogfish eyes have been delaminated for AMS or stable isotopes yet.

AMS

N AMS sent	N AMS returned	N AMS samples left per budget
125	54	525

AMS results can be found in NPRB2301_layer_results.

Stable Isotopes

N SIA sent	N SIA returned	N SIA samples left per budget
70	0	560

First batch of stable isotope samples have been sent to Stanford lab for analysis. Stay tuned for results.

CSIAA

N CSIAA sent	N CSIAA returned	N CSIAA samples left per budget
0	0	30