Invertebrate Collections: Fish and Wildlife Research Institute

PAUL LARSON
FISH AND WILDLIFE RESEARCH INSTITUTE

Florida Fish and Wildlife Conservation Commission
Specimen Information Services
Organization

Florida Fish and Wildlife Conservation Commission
  ◦ Fish and Wildlife Research Institute
    ◦ Information Science & Management
      ◦ Research Information Services
    ◦ Data Access
  ◦ Research Information Center
  ◦ Specimen Information Services
  ◦ Communications
Staffing

Permanent Invertebrate staff:
- Curator of Collections: Paul Larson (2 yrs)
- Collection Manager: Laura Wiggins (6 years)
- Collection Technician: Haley Holloway <1 month

Other Permanent Staff:
- Curator: Paul Larson (<1yr)
- Ichthyo. Collection Manager: Eric Post (2 yrs)

Contract staff (Through University of Florida):
- Ichthyoplankton Database Manager: Janessa Fletcher
- Ichthyoplankton Collection Manager: Kelly Hoolihan
Infrastructure:

Building: Former Merchant Marine Barracks (ca. 1920s)

52 rows of compacted shelves (incl. Ichthyo

3484 Sq. feet

4 office areas, 2 sorting areas

Building issues: Scattered staff due to mold (Remediation plan pending new roof, new windows). –specimens unaffected.

2 -80 Freezers for tissue storage
Curation

Invertebrates
- 136,221 cataloged lots (2/3/2019)
  - ~700,000 specimens
- Recent transition to Specify 7 (Dec. 2018)
  - Invertebrates only – Fishes in progress
- Uncataloged Lots
  - Identified, uncataloged (~36,000 lots)
  - Unidentified, uncataloged (~40,000 lots)
Coverage (Taxonomic)

- **Dry Specimens**
  - **Wet Specimens (70% EtOH preserved)**
    - Formalin fixed (until early-mid 2000s or so)
    - Unfixed mid 2000s – beyond
  - **Tissues (-80°C Frozen)**
    - 615 tissues in 95% EtOH

<table>
<thead>
<tr>
<th>Taxon</th>
<th>% Family</th>
<th>% Genus</th>
<th>% Species</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annelida</td>
<td>96.6</td>
<td>79.3</td>
<td>65.4</td>
</tr>
<tr>
<td>Arthropoda</td>
<td>98.7</td>
<td>97.1</td>
<td>75.0</td>
</tr>
<tr>
<td>Bryozoa</td>
<td>87.9</td>
<td>85.2</td>
<td>57.8</td>
</tr>
<tr>
<td>Cnidaria</td>
<td>96.8</td>
<td>95.6</td>
<td>81.8</td>
</tr>
<tr>
<td>Echinodermata</td>
<td>94.6</td>
<td>93.8</td>
<td>84.9</td>
</tr>
<tr>
<td>Mollusca</td>
<td>98.9</td>
<td>87.9</td>
<td>74.0</td>
</tr>
</tbody>
</table>

**Top 6 Phyla**

- Mollusca, 51558
- Arthropoda, 29381
- Echinodermata, 10251
- Cnidaria, 4733
- Bryozoa, 10796
- Other, 2888

**Top 6 Phyla Wet vs. Dry**

- Mollusca
- Arthropoda
- Annelida
- Bryozoa
- Echinodermata
- Cnidaria
Coverage (Geo. & Temporal)

Strongly Florida-centric, Gulf of Mexico
Sporadic collections from world-wide localities
Weaker: State-wide estuaries, Atlantic Coast

- New collections mainly from SEAMAP program and sampling activities by SIS staff
Digitization

Past grants:
- None (as far as I’m aware)
- Challenges
  - Time & Staffing / building problems
- Cataloged lots all digitized
- Past efforts
  - 3-year specimen inventory (~2012-2015)
  - Sporadically, as time permits
  - Scanning old (hand-written) labels, field data sheets, etc.
- Where are we heading?
  - Nowhere currently... busy Getting databases migrated to Specify, Staffing reduction
- Goals
  - Georeference all cataloged lots
  - Photo digitization of select specimens
  - Uncataloged lots with field data and determinations waiting for ID (backlog)
  - Online searchable portal (a la FLMNH specify portal)