

The Use of Digital Photography for Vouchering Fish Collections

Gordon Linam



Why Voucher?

- SWQM sampling protocol
- QA/QC



Why Photo Voucher?









Disadvantages of Photo Vouchers

- No specimen
- May not be suitable for identification



Reference

- **Stauffer, J.R., J. Karish, and T.D. Stecko. 2001. Guidelines for using digital photos as fish vouchers for Pennsylvania fishes. Pennsylvania State University and National Park Service. 13 pp.**

Digital Camera Specifications

- **Color – 16-bit or better**
- **High pixel density – 1024 X 768**
- **Macro capability**
- **Built-in or external flash**

Photo Composition

- **Photograph left side**
- **Maximize fish in field of view**
- **Include size reference**

Photo Management

- **Save file in compressed jpeg format (medium to high quality)**
- **Add text label**
- **Rename file**

Sabine River

striped mullet



N 30° 16.350' W 093° 42.444'

07/19/2006 9:22:55 AM







06/13/2006



























06/14/2006















06/13/2006



















Conclusions

- **Must be familiar with fish keys**
- **Use photography as a vouchering tool rather than a means for identification**
- **Okay to use digital photos for identification, but specimen may be necessary if photo does not capture necessary details**



Laboratory Tracking, Preservation, and Labeling

- Or -

‘NOW what do I do with all these
Fish!?!’

Fixing and Rinsing

- **Formalin for a minimum of 7 days**
- **Rinse/soak in water for 3 days**
- **Store in 70% ethyl alcohol (non-denatured)**

| Sample Tracking Log | | | | | | | | | | | | |
|----------------------|--------|------------|-----------------|-----------|-----------------------------|-----------------------------------|--------------|--------------------|-----------------|---------------|---------------|------|
| Waterbody/Station ID | County | Collectors | Collection Date | Bottle ID | H ₂ O Rinse Date | H ₂ O Rinse (Initials) | Ethanol Date | Ethanol (Initials) | Sort (Initials) | ID (Initials) | QA (Initials) | Pass |
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- **Waterbody/Station ID**
- **County**
- **Collectors**
- **Collection Date**
- **Bottle ID**
- **H₂O Rinse Date**
- **H₂O Rinse Initials**
- **Ethanol Date**
- **Ethanol (Initials)**
- **Sort (Initials)**
- **ID (Initials)**
- **QA (Initials)**
- **Pass**

Voucher Specimens

- **Serve as long term physical representations**
- **Maintain for a minimum of 5 years or until the conclusion of any applicable regulatory decision**
- **Adequate quantity and quality of space**

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