A New View of Southeastern Stone Fish Weirs

Introduction

Stone fish weirs are relatively common features in many southeastern waterways used both historically and prehistorically and these constructed stone alignments represent an often-overlooked component of the cultural landscape. Due to several factors they have received only intermittent archaeological attention and are rarely the subject of systematic survey. Relatively recent advances in the quality of satellite-based imagery, like Google Earth, have made the identification and recording of fish weir sites possible on a regional scale. Here I present the initial findings of the North Carolina Fish Weir Archaeological Project.

The goals of the North Carolina Fish Weir Archaeological Project are:
- Create an inventory of fish weir locations within North Carolina and the broader region to better inform Environmental Review decision, and future fish weir research, and facilitate awareness and preservation of these sites.
- Investigate the spatial distribution and morphological variation of fish weir features across the state.

Using Google Earth

Google Earth survey, with Historical Imagery:
- Google Earth’s predecessor, Keyhole, has been available since 2005, though Google Earth wasn’t officially launched until 2005, and the Historical Imagery feature was introduced in 2009.
- Historical Imagery typically provides aerial imagery beginning ca. 1993, though Historical Imagery has become available for locations before 2005.
- Limitations/Issues of using Google Earth Survey include bias toward larger order streams due to visibility. Limited high-resolution imagery for particular locations.

Previous Fish Weir Research

- Recent syntheses are notable exceptions. Though Connaway provides comprehensive synopses of fish weir studies worldwide, and his work was seen in Mississippi in particular, most of the discussion of weirs in the Southeast involved wooden stake weirs and stone weirs. Additional interest in fish weirs includes Bill Frazier’s work in GA.
- Obstruction to fish weir studies include lack of datable material or associated processing sites, weirs are generally not directly impacted, CRM/compliance projects, difficult to access and document especially when rivers are high.

Results

- A New View of Southeastern Stone Fish Weirs was identified through Google Earth survey. Previously recorded, historical maps, and other sources. This total may be revised to exclude historic lock and dams, sluiceways, and other cultural features that are ultimately found not to be fish weirs. Additional weir sites still to be identified.
- NC has the largest number of suspected stone fish weirs (n=219) and has one of the densest concentrations of fish-weirs anywhere. The Yadkin/PeeDee River hosts the largest number of fish weirs of any river in North Carolina.

North Carolina Archaeological Site File Research

- 208 previously recorded archaeological sites located within 500 m of SCUF stone fish weir sites.
- Of these, most date to the late Archaic, Woodland, and Historic periods.

Next steps

- Ground-truthing of suspected fish weirs
- Detailed mapping through photogrammetry, Bathymetry USACE, or traditional archaeological mapping techniques.
- Targeted systematic survey for terminal archaeological sites associated with fish weir locations.
- National Register of Historic Places nomination as archaeological district or multiple property submission (MPS).

References

- Rostlund, Delores Hall, and Steve Davis.
- Mintz, Rosie Blewitt.