

Summary Report for the Puerto Peñasco Archaeology and Paleoenvironment Project (PPAPP)

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This report discusses the preliminary results of three field sessions conducted in the spring of 2018 for the Puerto Peñasco Archaeology and Paleoenvironment Project (PPAPP). The work was made possible by a generous grant from The Next Generation Sonoran Desert Researchers (N-Gen). Fieldwork and artifact analyses are being conducted under a permit issued by the National Institute of Anthropology and History (Instituto Nacional de Antropología e Historia – [INAH]).

This is a continuation of archaeological work done along the coast near Puerto Peñasco for several years. During 2018, three sites were investigated for this project that included SON B:5:10 (Duna Larga), SON B:5:11 (Oyster Hill), and SON B:11:1 (Morúa site). Additionally, limited reconnaissance was conducted in the Bahía Adair area. The investigations included surface collections, excavation of 1×2 m units, and inventory of the shell species from these midden sites. We conducted three field sessions in February, March, and May 2018. Crew included Doug Mitchell, Dr. Jonathan Mabry, Dr. Gary Huckleberry, Cannon Daughtrey, Jennifer Toothaker Mabry, Mike Stubing, Kayla Beth Worthy, Dr. Karen Adams, Abby Dockter, Rick Martyneec, and Sandi Martyneec.



Google Earth image showing the locations of the three sites discussed in this report, SON B:5:11 (Oyster Hill), SON B:5:10 (Duna Larga), and SON B:11:1 (Morúa).

SON B:11:1, the Morúa site, lies along an extinct channel of the Río Sonoyta where it emptied into the Morúa Estero. This site is one of the largest in the area and five excavation units have been excavated across this large midden site in 2005, 2015, and 2018 (one test unit was excavated in 2018). Radiocarbon dates and artifact types from this project and previous projects, together indicate nearly continuous use of this site from 2500 BC through the 16 or 17th century AD.

Two sites were investigated in the Bahia Adair area, SON B:5:10 (Duna Larga) and SON B:5:11 (Oyster Hill). Surface artifacts and radiocarbon dates from these sites indicate use beginning in the late Archaic and continuing into the ceramic period, 2500 BC through AD 1300.

Over 260 kg of shell were inventoried from the four test units. The two units at SON B:5:10 (Duna Larga) produced 55 kg of shell, dominated by clams (*Chione* sp.) and oysters (*Ostrea* sp.), the one unit at SON B:5:11 (Oyster Hill) produced 102 kg of shell dominated by oyster, and the unit at SON B:11:1 produced 107 kg of shell dominated by clams. Small fish bones (including otoliths [fish ear bones]), crab claws, and terrestrial animal bones were also recovered from all test units. Probable sea turtle bones were recovered from SON B:5:10 and SON B:5:11 and have been previously reported from SON B:11:1.

Artifacts from these sites included chipped stone tools, flakes, ground stone tools, pottery, and shell tools. The pottery included plain wares, Hohokam Red-on-buff, Trincheras Purple-on-red, and Lower Colorado River buffware. Stone pipe fragments were found at two of the sites. Archaic-style projectile points were also found.

Obsidian artifacts were found at SON B:5:10, B:5:11, and Locus 55 (near B:5:11). These artifacts were analyzed for geological sources. Of the 34 obsidian artifacts, 19 were from the Los Vidrios source, 9 were from the Los Sitios del Agua source, and six were from unknown sources (SON Unknown C=2; SON Unknown E=3; SON Unknown F=1). All these sources are probably located in the Pinacates.

The 2018 investigations continue to add to our knowledge of prehistoric use of the coast on the edge of the Sonoran Desert. Artifacts indicate use of the area from the middle to late Archaic period up through the ceramic period, and into the protohistoric period. Charred remains indicate use of the local vegetation for cooking the fish and shell fish; no cultivars were found. Samples of shells from excavated contexts are also undergoing isotope analysis. Studies of the artifacts and ecofacts from this area will continue to enhance our knowledge of coastal adaptations, ecological change, and paleoclimatic conditions in this unique area.



Archaic period projectile point, Trincheras culture Purple-on-red (center) and Hohokam Culture Red-on-buff (right) ceramic jar fragments.