Initial Findings of Investigations Concerning Palamedes Swallowtail Butterflies at Hamilton Pool Preserve Travis County, Texas

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BACKGROUND

In 2001, butterfly surveys of Hamilton Pool Preserve were initiated in an effort to begin assembling a field checklist for the property. In addition, the isolated population of red bay (*Persea borbonia*), a larval food source for the palamedes swallowtail (*Pterourus leontis*) butterfly, fueled speculation concerning the presence of this species at the preserve. Verification of this species would represent a range extension, as the nearest confirmed localities for the palamedes swallowtail are 150 miles east of Hamilton Pool Preserve.

A total of 61 butterfly species, including the palamedes swallowtail, were documented during the first year of field investigations.

SUMMARY OF 2002 FIELD WORK

In 2002, 20 additional butterfly species were observed, bringing the preserve total to 81 species. During the past year, all life stages of the palamedes swallowtail were observed at Hamilton Pool Preserve. Adults were observed laying eggs on red bay, and collected caterpillars were successfully reared to adults. Confirmation of the palamedes swallowtail at Hamilton Pool raised several questions. While the Travis County population is geographically closer to the population on the Texas coast, subtle pattern differences observed may indicate ties to the palamedes subspecies found in Northeastern Mexico (*Pterourus palamedes leontis*). Ongoing research is underway to determine the genetic relationships between the Hamilton Pool palamedes swallowtails and the Texas coastal and Mexican subspecies. The red bay itself is also under investigation after preliminary work by a University of Texas botanist raised questions regarding its taxonomic status.

The final report detailing the 2002 findings will be turned in to Travis County by March 2003.