



## Kayaks and Compasses, An Extraordinary Fieldtrip into the Thousand Islands

Materials created for Kayaks and Compasses <sup>TM</sup>  
by Tim and Laura Kozusko. Revised 2008.

All photographs by Tim Kozusko, unless otherwise noted.





## Kayaking Route



Reflect on your Kayaking adventure, using all of your senses to describe your experience.

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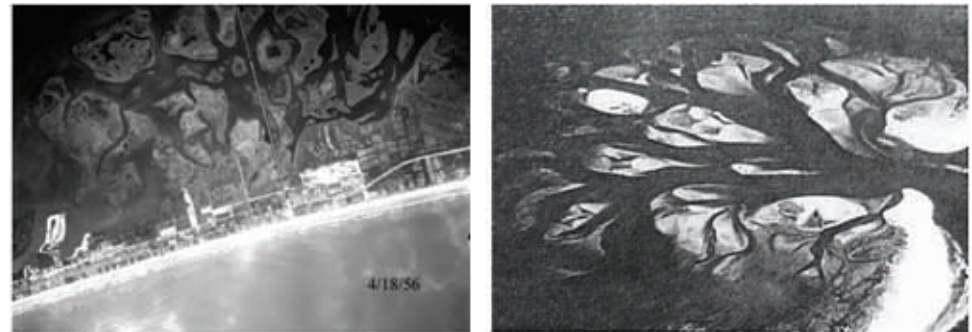
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The Thousand Islands is a natural formation called a Flood Tide Delta. This tells us that sometime in the past an inlet was blasted through the barrier island by a storm surge, where Cocoa Beach is now. This reminds us that barrier islands are fragile places, shaped by the sea, and easily reclaimed by the sea.

The Thousand Islands have been modified by mosquito control in the 1950s through early 1970s. In the pictures below, the Thousand Islands (left) are compared to the white sands of a recently formed flood tide delta in North Carolina. Similarities can be seen between the two formations.



Cocoa Beach photo courtesy Brevard County Mosquito Control. Flood tide delta picture from *Barrier Islands* S.P. Leatherman Ed., page 216.

Since saltmarsh mosquitoes don't lay their eggs in standing water, canals were dredged through the Thousand Islands to remove breeding habitat. What other animals were affected by this?

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Where do you think these animals lay their eggs?

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Horseshoe Crab



Diamondback Terrapin



Mottled Duck

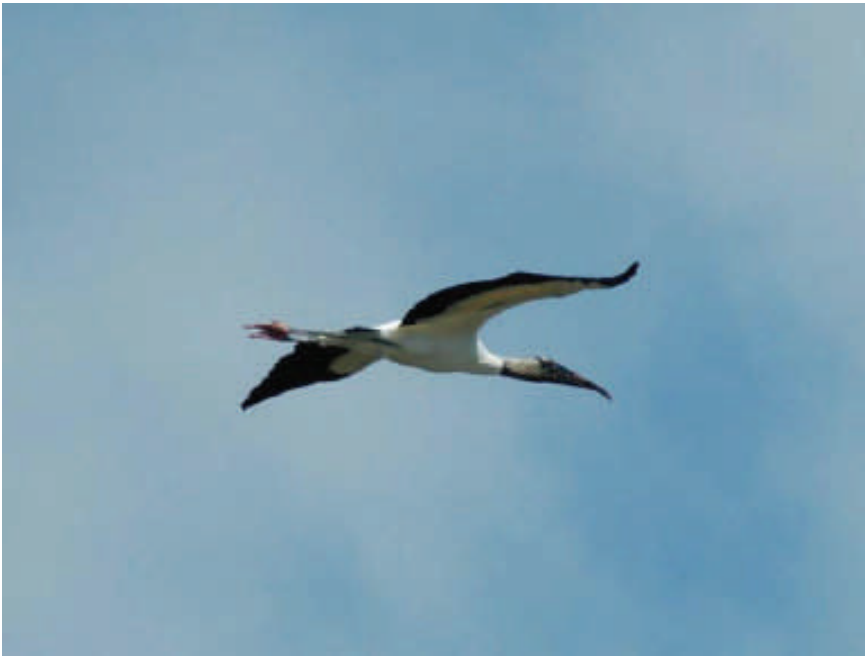


Snowy Egret (notice "golden slippers")





Roseate Spoonbill



Wood Stork flying

## Compasses on Crawford Island



Florida Privet



Sabal Palm (Florida's State Tree)





Brazilian Pepper (invasive non-native)



Osprey (with jack)



Close-up of Brazilian Pepper leaf (note arrangement of leaflets)



Osprey





Little Blue Heron



Tri-colored Heron



*Schefflera* (moderately invasive non-native)



Strangler Fig (growing in Sabal Palm)





Polypody Fern (growing in Sabal Palm)



Lantana (native)



Great Blue Heron (with cotton rat)



White Ibis



## Kayaks



Aninga



Cormorant



Wisk Fern



Spanish Bayonet







Go south west 240° for 5m then 300° for 3m  
Station 6 (Prickly Pear Cactus, Snowberry)

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Go south east 160° for 3m, then south west 245° for 7m  
Station 7 (Regrowth after Hurricane Damage)

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Go south west 220° for 17m  
Station 8 (mangrove aerial roots, white, black and red) Name 5 plants that you have seen on this walk that you see here.

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**Mission accomplished!!!**

Head north east, follow the trail back to the Florida privet.



Toothache Tree



Wax Myrtle





Hurricane Damage 2005



Same area 2007 (how has it changed?)

**Go south west 250° for 8m (Spanish Bayonet, Red Cedar) and then west 300° 8m Station 3 (Spanish Bayonet, Australian Pine, Red Cedar, Ball Moss, Native Recruitment—small Oak, Goldenrod, Wax Myrtle)**

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**Go south west 220° for 6m and then south east 160° for 3m**

**Station 4 (Toothache Tree, Oak, Red Cedar, Palm)**

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**Go south 180° for 7m**

**Station 5 Wax Myrtle, Spanish bayonet, suckering Australian pine**

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# Crawford Island Orienteering

You will be following a series of directions that will require you to use your compass and pacing skills. At each station, re-orient your compass to north and then set the new direction. Remember your personal number for pacing 10m. Use this number to go the required distance. At each station write the name(s) of the plant(s) you see - use the pictures in the booklet to help you. Describe plants or animals of interest at each station. Take pictures on your journey for your photo essay.

## Start/End Florida Privet Bush

Go south 210° for 20m

Station 1 (Fl. Privet, Sabal Palm, Brazilian Pepper, Schefflera, stopper, Strangler Fig, )

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Go south west 240° for 15m Station 2 (Polypody Fern, Lantana, Wisk Fern)

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White Mangrove aerial roots



Black Mangrove aerial roots





Prickly Pear Cactus (notice yellow thorns)



Red Mangrove (notice prop roots)



Ball Moss (an "air plant" and relative of pineapple)



Owl Pellet with rat bones