

NOTES

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GREAT EGRETS GLEANING DRAGONFLIES

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Although mainly piscivorous, the Great Egret (*Ardea alba*) takes a variety of food items including dragonflies (Insecta, Odonata; McCrimmon et al. 2001, Hancock and Kushlan 1984, Palmer 1962). Clark (1980) described gleaning of dragonflies from low salt marsh vegetation by Tricolored Herons (*Egretta tricolor*) near a nesting colony. Gleaning of insects is noted as a foraging behavior of Great Egrets in Kushlan (1978), but I could find no published description of gleaning behavior for the Great Egret. On the morning of 24 March 2003, I was measuring foraging rates of wading birds feeding in impounded salt marsh habitat along the Black Point Wildlife Drive on Merritt Island National Wildlife Refuge near Titusville, Florida. Between 10:30 and 12:00 I observed four Great Egrets gleaning dragonflies which were perched on the ends of stems of sand cord grass (*Spartina bakeri*) and salt grass (*Distichlis spicata*). From my observation point 35 m away, the length of each dragonfly's body appeared to be less than one-quarter of the length of a Great Egret bill, which is typically in the range of 11 cm (Palmer 1962). Two of the Great Egrets that gleaned dragonflies were foraging in a loose mixed-species foraging aggregation (individuals separated by 15-50 m) including four Great Egrets, and one Tricolored Heron. The other two Great Egrets observed eating dragonflies were foraging solitarily (greater than 100 m to the nearest other wading bird). During the time the birds were observed gleaning dragonflies, the birds were moving slowly through the vegetation with the neck extended in an upright posture and body angled away from the ground. The dragonflies were captured with rapid strikes of the head and neck and were swallowed immediately. One of the birds captured six fish and one dragonfly during the three minutes I observed its foraging behavior; two others captured only dragonflies during the three minutes (one and three dragonflies captured). The last individual observed gleaning dragonflies was not observed long enough to quantify its foraging behavior. Thus, dragonfly gleaning behavior appeared to be a foraging strategy rather than incidental or opportunistic captures during foraging for other prey. The weather was typical of early spring in Florida, with clear skies and air temperature around 22°C with a light wind around 11 km/h.

On numerous occasions while conducting monthly aerial surveys of wading bird foraging habitat use during the past six years, I have noticed small groups of Great Egrets foraging in non-flooded *Spartina bakeri* salt marsh during the winter dry season. These groups typically consist of 2-10 individuals separated by 10-100 body lengths. Individuals appear to be standing upright and are stationary or moving slowly within the tall (1-2 m) grass. Accounts of Great Egrets taking various small mammals (Palmer 1962) led me to assume that the birds were foraging for terrestrial vertebrates, but clearly they may have been foraging for insects.

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