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Abstracts

SHORT COMMUNICATIONS

AMERICAN WHITE PELICAN SOARING FLIGHT TIMES AND ALTITUDES RELATIVE TO CHANGES IN THERMAL DEPTH AND INTENSITY

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Abstract. We compared American White Pelican (*Pelecanus erythrorhynchos*) soaring flight times and altitudes to model-produced estimates of thermal depth and intensity. These data showed that pelican soaring flight was confined to the thermal layer, and that the vertical extent of the soaring flight envelope increased with increases in thermal depth. Pelicans soaring cross-country between foraging and breeding sites flew mainly within the middle of the thermal layer, regardless of its depth. In contrast, pelicans engaged in wandering flight near foraging sites typically confined their flight to the lower thermal layer. Pelicans soaring cross-country likely flew higher in the thermal layer to maximize cross-country soaring performance, while pelicans soaring locally presumably flew lower because additional altitude was unneeded for gliding short distances. An analysis of pelican flight times relative to model-produced estimates of thermal intensity suggested that pelicans began soaring as soon as sufficiently strong thermals developed daily.

Key words: American White Pelican, avian soaring performance, cross-country soaring, flight altitudes, flight times, *Pelecanus erythrorhynchos*, thermals.