

DIURNAL ACTIVITY OF BROWN PELICANS AT A MARINA

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Brown Pelicans (*Pelecanus occidentalis*) often visit marinas and fish piers as part of their daily routine. Increasing urbanization disturbs the pelicans from their "natural" loafing areas on sand bars and mangrove keys, thus expansive roofs of marinas are an important resting site. In addition, sport fisherman cleaning their catches provide food sources at certain times of day. The present study investigates the diurnal pattern of utilization of one marina. This study forms a portion of a much broader investigation into the biology of the Brown Pelican in Florida.

METHODS

Weekly between 30 September 1973 and 22 March 1974, Herbert visited O'Neill's Skyway Boat Basin, on U.S. 19 just north of the Sunshine Skyway bridge, on Boca Ciega Bay, Pinellas County, Florida. On these 24 days at hourly intervals from sunrise to sunset she counted all pelicans present and categorized them by plumage characteristics into four age classes (Schreiber, unpublished data). Her hourly data, based on averages for all months combined, are illustrated by Figure 1. Her monthly data, based on averages for each hour within each month, are illustrated by Figure 2.

RESULTS AND DISCUSSION

Examination of Figure 1 reveals that few birds are present in early morning and late in the day and that numbers gradually increase to peak in early mid-afternoon, after which a sharp decline occurs. This trend occurs in all age classes but is most pronounced in adult birds, which compose the majority of this assemblage.

Examination of Figure 2 discloses that the daily pattern is true for each of the six months. The fluctuations in numbers between months and the relation of this marina to the Boca Ciega Bay pelican population are currently under investigation.

We suspect the diurnal pattern demonstrated here indicates the ability of Brown Pelicans to adapt their daily feeding and resting regimes to man's activities. The birds probably feed normally during the morning hours and then retire to loaf, preen, and sleep in an undisturbed area during the afternoon hours. The boat basin provides the loafing area. Additionally, fishermen usually return to the marina in the early to mid-afternoon, where they discard remains into the water, often purposefully feeding the pelicans that immediately gather around the fish cleaners. We suspect that this food source is an added attractant of the marina to the birds, and one that may provide an important food source during times of fish shortage.

These data are extracted from a senior thesis submitted to the Collegium of Natural Science, Eckerd College, by Ms. Herbert. Glen E. Woolfenden suggested certain changes in the manuscript.

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Figure 1. Average number of Brown Pelicans present at O'Neill's Skyway Boat Basin, St. Petersburg, Florida on 24 days between 30 September 1973 and 22 March 1974.

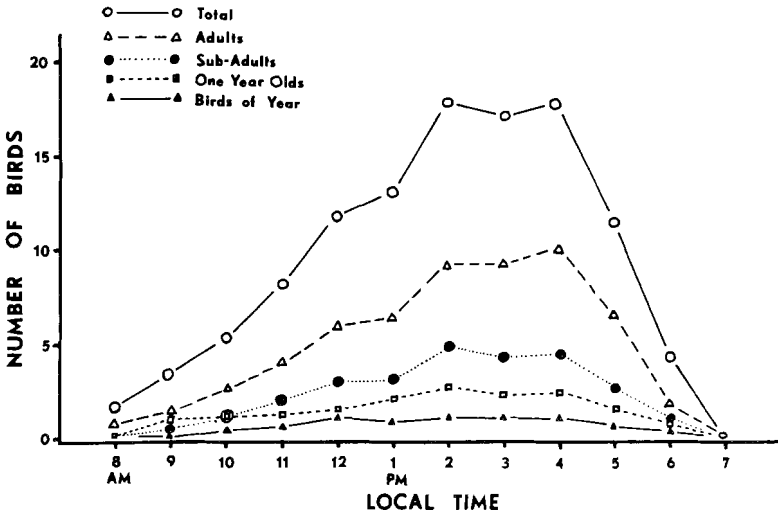


Figure 2. Monthly average number of Brown Pelicans present at O'Neill's Skyway Boat Basin, St. Petersburg, Florida between October 1973 and March 1974.

