

Using aerial survey to

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**USING AERIAL SURVEY TO ESTIMATE THE ABUNDANCE OF MARSH DEER (*BLASTOCERUS DICHOTOMUS*) AND ACTIVE NESTS OF MAGUARI STORK (*CICCONIA MAGUARI*) IN THE GUAPORÉ RIVER FLOODPLAIN, BRAZIL**

Tomas, W.M.; Tiepolo, L. M.  
tomasw@cpap.embrapa.br

Aerial surveys have been used to estimate and monitor population abundance of several large vertebrate species which inhabit open habitats. In Brazil, aerial surveys have been applied in monitoring programs in the Pantanal wetland, in the Paraná River floodplain, in the Guaporé valley floodplains, and in the Amapá coastal wetlands. We used aerial surveys to estimate the abundance of the marsh deer (*Blastocerus dchotomus*) and the number of active nests of maguari storks (*Cicconia maguari*) along the floodplain of the Guaporé River, Rondonia state. Marsh deer is an open-habitat dweller, and the nests of maguari stork are constructed in flooded, open grasslands. We surveyed the floodplains in the dry season (October) of 2006. To correct visibility errors we adopted the double-count technique. Two observers were placed in the same side of the airplane and conducted independent counts. Transects were divided in time sub-units of 30 seconds, allowing the comparison of records of both observers. We surveyed a total of 1,189 sub-units, each one corresponding to 1.5 km in the ground. All deer and nests observed in transect strip 300 m wide were recorded. The marsh deer population is estimated to be  $3,732 \pm 581$  individuals (density =  $0.44 \pm 0.07$  deer/km<sup>2</sup>), while the number of active nests of maguari stork is estimated as  $1,607 \pm 322$  (density =  $0.19 \pm 0.04$  nests/km<sup>2</sup>). This is the first study applying aerial survey to estimate the number of active nests of maguari stork, and this approach may useful for the monitoring purposes.