Corella 2006, 30(1): 16-20

EFFECT OF RAINFALL. ON BREEDING OF GREY SHRIKE-THRUSHES Colluricincla harmonica

HELEN C. STEVENS and DAVID M. WATSON2'3

Tibuc Road, Coonabarabran, New South Wales, Australia 2357 ' Applied Ornithology Group, Institute for Land" Water and Society, Charles Sturt University, New South Wales 2640 3 Corresponding author. E-mail: dwatson@csu.edu.au

Received: 9 September 2005

Observational data from 24 nests in a single area in central New South Wales over eight years were used to determine whether the reproductive output (eggs laid, chicks fledged, number of broods) in a breeding season was related to rainfall before and during the breeding season in an endemic passerine, the Grey Shrike-thrush *Colluricincla harmonica*. In a species where clutch size is low and relatively fixed, annual rainfall nevertheless influenced both clutch size (correlation coefficient r = 0.62) and number of successful nests (r = 0.94). There was a strong relationship (r = 0.98) between annual rainfall and number of chicks fledged over the breeding season. It appears that the Grey Shrike-thrush can fine tune reproductive output in response to rainfall (presumably mediated via food availability) an ability that would assist adult survival while maximizing reproductive output where climate and resources fluctuate markedly.