

FEATURE ARTICLES

**TIME BUDGETS AND BODY TEMPERATURES OF AMERICAN GOLDEN-
PLOVER CHICKS IN RELATION TO AMBIENT TEMPERATURE**

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Abstract. We studied time budgets of precocial chicks of American Golden-Plovers (*Pluvialis dominica*) on the tundra near Churchill, Manitoba, Canada, to assess how time budgets are influenced by environmental and body temperatures. Foraging time per day increased with increasing ambient temperatures and levels of solar radiation, as well as with age. This increase was due to an increase in the length of foraging bouts (i.e., the period of time in between two brooding bouts). The length of brooding bouts averaged 12 min, independent of ambient conditions or age. Body temperatures were lower under colder environmental conditions and increased as the chicks grew older. Based on measurements of cooling rates of penned chicks, we determined that at the end of a foraging bout, body temperature never fell below 35.5°C, which is high for a precocial chick. We suggest that in Churchill, American Golden-Plover chicks are not limited in their foraging time by ambient conditions, and they can collect sufficient food in the short periods of foraging that are available to them to sustain normal growth. By minimizing foraging bout length in favor of parental brooding, chicks may increase their digestive efficiency as well as save energy that would otherwise be expended on thermoregulation and locomotion.

Key words: behavioral thermoregulation, foraging ecology, *Pluvialis dominica*, precocial, shorebirds, telemetry, time budget.