October to December interval or 0.93 to 1.58 hours for a male tending his incubating female and, later, his nestlings.

4. This led to the hypothesis that selection should operate to minimize H_{TD}, and since changes in behavior are the greatest source of variation in H_{TD}, selection should favor those behaviors that maximize the return on the investment of time and energy in activity.

The cost of foraging, and the required foraging efficiency (η_{Rf}) for any one day depended on the characteristics of the food resource being utilized. Consequently η_{Rf} varied during the year, but always in such a way that long-term fitness seemed to be enhanced when 1) individual food items were large, finding and swallowing time was short, rate of energy intake high, and η_{Rf} was high (10.1 to 10.5) and 2) individual food items were small, finding and swallowing took longer, the rate of energy intake was low, and η_{Rf} was low (3.2 to 4.5).

The time-activity laboratory method used in this investigation was evaluated and shown to provide inexpensive, reasonably accurate estimates of H_{TD}, provided that measured energy equivalents can be assigned to the behaviors being described and that thermoregulatory demands are adequately determined.

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