

3 eggs—1 nest (6.2%)	7 eggs— 1 nest (6.2%)
4 eggs—2 nests (12.5%)	8 eggs— 1 nest (6.2%)
5 eggs—5 nests (31.2%)	9 eggs— 1 nest (6.2%)
6 eggs—5 nests (31.2%)	Total—16 nests (100.0%)

Apparently, five and six eggs represent the prevailing clutch-size classes for secondary nests. These data appear to be at variance with a statement by Oney (1954), who found no "appreciable decrease in the size of the clutch toward the end of the nesting season" in Georgia.

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Unusual Responses of a Prairie Warbler to Sunlight.—The occasional suddenness of the initiation of sun bathing in birds and the striking way in which sunning may take precedence over feeding behavior have been described by Hauser (1957). Responses to sunlight by a female Prairie Warbler (*Dendroica discolor*) observed at Bloomington, Indiana, are interesting in this connection for two reasons: first, the dominated activity was probably the gathering of nest material; second, the bird attempted to hop while in a sun-bathing position, with the result that she moved as though crippled. The observations were made on 28 May 1959, at 11:00 A.M., when the sky was unusually bright and the air temperature was about 80°F. The warbler had just lost her second nest to a predator, and although her third nest was not found until four days later, she had probably begun its construction when the following behavior was witnessed.

When discovered, the bird was perched on a low branch in partial sunlight, her bill open, her wings half spread, her tarsi slightly flexed. A similar rigid attitude often denotes hostility in the Prairie Warbler, but this female was periodically giving her attention to normal preening and did not appear to be tense. In retrospect, it seems likely that she was in the shading position, heretofore seen by me only at the nest, where it usually functions to shelter nestlings from direct sun.

After about a minute, the warbler hopped to the nearly bare ground, in full sunlight. Here she immediately tilted her body to one side and assumed a sunning position corresponding to that designated by Mrs. Hauser as "level III" (see illustrations 2 and 3, *op. cit.*, p. 86). The warbler remained thus for some three seconds, flew to perch in the shade, and in about two minutes returned to the ground. This time she fell into a crouch, resting her belly on the ground, spreading

her wings wide to each side, and fanning her tail (much as in Mrs. Hauser's "level IV," illustration 5, *loc. cit.*). This posture was quickly replaced by that first mentioned, and after perhaps five seconds the bird retreated to perch in the shade. Again she waited a minute or so and then once more dropped down, but this time, although she went quickly into the crouched, wings- and tail-spread position, she attempted to hop about. The resulting movements were spasmodic and suggested that she was seriously injured. Her belly and spread wings dragged, so that she progressed in jerks and with difficulty and sometimes seemed about to lose her balance and topple forward. This performance lasted several seconds; she then flew up to sit quietly on a shady branch for two minutes. A final visit to the ground duplicated the preceding one, and after struggling along, apparently nearly helpless, for about a foot the bird flew up to a tree, joined her mate, and left. The entire episode lasted some eight minutes.

Feeding is arrested in many species, as described by Mrs. Hauser, when birds are suddenly subjected to the stimuli for sun bathing, but apparently little is known about the effects of the motivation to sun bathe (see Lanyon, 1958) on other kinds of behavior. Sunning birds are sometimes capable of hostile vocal and other responses, and such maintenance activities as preening and scratching are frequent (Hauser, *op. cit.*; Miller, 1952). The ability to fly to avoid the sunlight or to escape human intrusion seems to be not in the least affected, even in birds that appear to be suffering or comatose (Hauser, *op. cit.*). In the case of the Prairie Warbler described above, the behavior interfered with was very likely the gathering of nest material. Foraging on the ground is relatively rare, and all the circumstances strongly support the probability that the female was about to search for plant fibers.

Whatever the activity that yielded precedence to sunning, the fact that the bird appeared to be injured has some relevance to the subject of distraction display, although her behavior was quite different from this display in the Prairie Warbler. In the first place, there is the widely held view (discussed in Nice, 1943, and Armstrong, 1947) that the distraction behavior of some species is derived from the effort to respond simultaneously to stimuli calling forth highly dissimilar movements. The incident described above seems to be a good illustration of how reactions to conflicting stimuli can result in a product resembling the distraction display of many species. Second, the observation indicates the importance of caution not only in concluding that a bird "feigning injury" is engaging in distraction display but also in classifying any single instance of behavior, even though it is very striking, as display in the sense connoting stereotyped reaction.

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