

unique. We have found three recorded instances where birds mobbing predators exhibited breeding-related behaviors. Goodwin (1952) observed a male Lanceolated Jay (*Garrulus lanceolatus*) perform juvenile-type begging at a stuffed owl that the jay was in the process of mobbing. Smith (1970) reports Cactus Wrens (*Campylorhynchus brunneicapillus*) performing behavioral patterns normally associated with courtship while vigorously mobbing a ground squirrel. Male Snow Buntings (*Plectrophenax nivalis*) were observed to intermittently display territorial fighting while in the act of mobbing a Northern Shrike (*Lanius excubitor*) (Cade 1967). Thus, in the presence of conflicting stimuli, it appears that mobbing behavior may be overridden as other types of social behavior emerge. The type of behavior most likely to be elicited is an act which is prevalent within the birds' repertoire at that time of year.

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CONFUSED NOCTURNAL BEHAVIOR OF A FLOCK OF MIGRATING YELLOW WAGTAILS

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Amadon's (1966) interesting account of the confused nocturnal behavior of a flock(s) of gulls in a storm situation was called to mind one night when I observed a rather similar occurrence involving a flock of Yellow Wagtails (*Motacilla flava*) at Tam Ky, Quang Tin Province, Republic of Viet Nam. I lived on a compound in Tam Ky (108°30' E, 15°34' N), about 70 km SE of Da Nang (formerly Tourrane), on the central Coastal Plain. The perimeter of the compound was illuminated by 1000-watt floodlights mounted approximately 50 ft apart and aimed outward at various angles of inclination from the ground.

On the morning of 8 October 1967 at 00:30, I was alerted by excited "tchi tchi" notes. At the perimeter of the compound, I found a flock of about 30 birds perched on the wire fence or on the ground. The glow from the perimeter lights reflected off the low cloud ceiling (reported at 75-100 m by the U.S. Air Force Unit of Tam Ky) provided enough light for me to identify the birds as Yellow Wagtails. The air temperature was 12°C, and the weather was overcast with a persistent fine mist, called "krachin," which is typical of autumn and winter months at Tam Ky. At intervals of 3-5 min, there was a sudden increase in the frequency of calling and the birds took off, nearly in unison, gathered into a compact flock and wheeled overhead for about a minute, after which they landed along the fence again.

I detected no difficulty in maneuvering or in landing on the wire fence and no evidence that the birds were blinded. The birds did not appear to be feeding on the insects swarming around the lights. The pattern of frenetic bursts of activity continued for more than an hour while I watched the apparently "imprisoned" wagtails. When I returned to the spot at 02:30, however, the birds were gone, although I could detect no change in the climatic nor illumination conditions.

During the hour of observation, I heard passing flocks of several kinds of passerines and shorebirds which flew by in the darkness, and only the wagtails seemed affected by the lights. Alcasid (pers. comm.) mentions netting many wagtails by night-lighting at a mountain pass in the Philippines on foggy nights. Clapham (1961) was also impressed with the significance of pipits and wagtails being attracted to lighthouses, and mentions this as important evidence that they migrate at night. Schuz (1956) reported Yellow Wagtails migrating by day along the south coast of the Caspian Sea. However, in Viet Nam, flocks of the three common (migrants) species of wagtails [Yellow; Grey (*M. cinerea*); Pied (*M. alba*)] terminated their flights soon after sunrise, and I never observed flocks migrating by day.

Many reports of bird-kills at television towers, skyscrapers, and other structures have appeared since Allen's (1880) account. Among others, Cochran and Graber (1958), James (1956), Stoddard and Norris (1967), and Tordoff and Mengel (1956) have discussed the problem. Although low cloud ceiling and/or fog, and moonless nights during the migration period are the common themes in these reports and in newspaper accounts of bird-kills, direct observations of the incidents reveal that several different phenomena may be involved. The gulls reported by Amadon (1966) were milling about in a dense snowstorm, apparently attracted by the glare of city lights, and Francis (1967) suggested that the

birds were unable to find orientation clues or a safe place to land. James (1956) indicates that birds flying through a severe storm arrived at lighted objects already in an exhausted condition and appeared to crash blindly into the structures. Cochran and Graber (1958) observed birds easily avoiding a tower and guy wires but circling continuously until they became fatigued and then either crashing into the tower or falling to earth. My observation of the wagtails indicated that the birds seemed intent in continuing their migration but that each time the flock became airborne it returned either because of actual attraction to the lights or more likely because it could not find a suitable flight path out of the illuminated area. Spofford's (1949) account of mass mortality at an airport ceilometer appears unique in that it occurred on a clear night. The reason for the occasional incidents involving ceilometers is obscure, and it is likely that the phenomenon is different from the kinds reported above.

The attraction or disorientation of birds by lights has been utilized by bird hunters in several areas of the world. Wingate (1964) described how some residents of Haiti capture Black-capped Petrels (*Pterodroma hasitata*) as they return to their mountain-side nests after dark. Alcasid (1968 and pers. comm.), who uses a similar method to net migrating birds, reports that the Igorot natives in the Philippines achieved considerable success for generations, first with fires and then with lanterns. Gee (1969) notes that the same technique is used by Jaintia villagers in India. In all three cases the people have learned that the lights have little or no effect except on foggy, moonless nights. Hunting animals by jacklighting, or blinding them with lights at night, is a much more widespread practice than the ones mentioned here. However, what actually happens to the migrating birds, and the roles of blinding, attraction, or disorientation remain to be determined, perhaps by experiment.

NEW NORTHERN RECORD FOR XANTUS' MURRELET

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On 25 October 1971, a Xantus' Murrelet (*Endomychura hypoleuca*) flew onto the starboard wing of the bridge of the R/V *George B. Kelez* as she proceeded NNW in the North Pacific Ocean about midway between Vancouver Island and the Queen Charlotte Islands of British Columbia, Canada. The exact time the murrelet came aboard and the position of the boat is uncertain, but the circumstances of the bird's discovery indicate that it was about 04:45, at 51°15' N, 129°58' W. The surface water temperature was about 10.5°C, considerably colder than the 14–16.2°C reported for other northern records of the species (see below). The skin and skeleton of this

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bird, an adult female weighing 162.5 g, have been deposited in the Thomas Burke Memorial Washington State Museum, Seattle (No. 26809). It had a large amount of body fat and the stomach was empty. The previous northernmost record is from approximately 335 miles south, off the coast of southern Washington (Cowan and Martin, Murrelet, 35:50, 1954).

This record plus recent sightings of the species off southern Washington by Wahl, Paulson, and Stiles (American Birds, 25:98, 1971), in addition to sightings and records off Oregon (Scott, Butler, Pearcy, and Bertrand, Condor, 73:254, 1971), suggest that this species probably ranges into these areas regularly in late summer and fall. I concur with Scott et al. that the lack of other records is probably from a scarcity of competent observers in these areas.

Nicholas D. Budnick, National Marine Fisheries Service, Seattle, helped catch this murrelet and Dennis Paulson, University of Washington, Department of Zoology, verified the identification, prepared the skin, and provided specimen data.

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