westerly winds to loft themselves up the Rift Valley slopes from the breeding cliffs to the foraging areas with apparently little effort. The return journey downhill was accomplished by a sharp-angled glide. In this energetically efficient manner, we observed them foraging as far as 3 km away from their nest sites. However, the majority remained within 1 km of their nest sites.

We observed kestrels foraging within DNR only in the open, grassy patches amongst juniper woodlands, and mostly during strong, hot easterly winds (khamsins), which appeared to make flight difficult to and from cultivated fields. We assumed that flying into the easterly winds was energetically more expensive and less profitable in terms of finding prey because we noticed a marked (but unquantified) reduction in the density of calling cicadas (*Cicadoidea* spp.; a major prey item) on the plateaus during the khamsins. In parallel, there was no change in the level of activity of the kestrels during different wind regimes in the sheltered parklands that were below and to the west of the scarp-edge.

The breeding population of Lesser Kestrel in DNR is the only confirmed breeding colony in Jordan (e.g., M.I Evans 1994, Important bird areas in the Middle East, Birdlife Conservation, Series 2, Birdlife Internat., Cambridge, U. K.). The earliest estimate of the size of this colony was 15–20 pairs between Dana village and the slopes of Barra in late April 1963 (D.I.M. Wallace 1984, *Sandgrouse* 6:24–47) which was very close to our estimate of 24–28 pairs suggesting that the population size is little different from 34 years ago.

Regular censuses are necessary to monitor population fluctuations. The population of Lesser Kestrels at DNR is one of the southernmost in the world and as such is an excellent subject for study of this phenomenon because population fluctuations are most obvious at the extremes of a species' range (R. Nathan et al. 1996, *Israel J. Zool.* 42. 361–375; I. Newton 1998, Population limitation in birds, Academic Press, London, U.K.).

We consider the Lesser Kestrel population at DNR to be extremely vulnerable to the influences of agricultural practices because most of their foraging areas lie outside the reserve. At present the Lesser Kestrel population has a chance to maintain itself because the current cultivation practices in the foraging areas appear to not be intensive, and are located in low-quality agricultural land (shallow, stony calcareous soil). Thus, conservation managers should encourage farmers to maintain low-intensity agricultural practices or they should try to acquire these areas for inclusion in the reserve. It is also imperative to determine the true breeding population in the deserts to the south and east of DNR in order to establish the true breeding population of Lesser Kestrels in the Hashemite Kingdom of Jordan.—**Reuven Yosef, International Birding and Research Center in Eilat, P.O. Box 774, Eilat 88000, Israel, Jacklene Boulos and Omar Tubbeshat[1], Arava Institute for Environmental Studies, D. N. Cheve, Eilat 88840, Israel.**

J Raptor Res. 33(4):342–343

BROWN BEAR (*URSUS ARCTOS*) FEEDS ON STELLER'S SEA EAGLE (*HALIAEETUS PELAGICUS*) NESTLING

On 21 July 1997 at about 1900 H, while conducting a survey of Steller's Sea Eagles (*Haliaeetus pelagicus*) along the coast and rivers of the North Okhotsk Sea (Magadan and Okhotsk districts), we witnessed a 3–6-yr-old brown bear (*Ursus arctos*) in the nest of Steller's Sea Eagle feeding upon the remains of an eagle nestling, approximately 8-wk-old. The nest was located atop a rocky pinnacle approximately 9 m in height which was accessible by land only during low tide. From a boat, we observed the bear feeding for about 10 min and were able to approach to within about 25 m, at which time the bear departed. We inspected the nest and found the legs and feathers of one Steller's Sea Eagle nestling and the jaw of a wolf fish (*Anarchalis orientalis*). The nestling remains were fresh and no *rigor mortis* was evident in the tarsometatarsus or phalanges, leading us to believe that the eaglet had been killed by the bear.

Although this is the first time during 6 yr of study that we witnessed a bear feeding on an eaglet, we have seen other indications that bear predation on Steller's Sea Eagle nestlings does occur. In checking 219 nests since 1984, we strongly suspected bear predation of eaglets in four other instances, based on earlier observations of well-grown nestlings, claw-marks high on trees and nest condition.

We regularly found signs of bears near tree and cliff nests and have found the remains of eaglets which apparently fledged, perhaps prematurely, and were subsequently eaten. The areas immediately around many nests in the North

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Okhotsk sea were crisscrossed by bear trails, and bears probably fed on prey remains which fell from nests. On a number of eagle nest trees, bear claw marks were noted above the height bears could reach from the ground.

Other observers have seen evidence of Steller's Sea Eagle nest depredation by bears. In 1985 on the Yana River, a bear climbed a tree, made a hole in the middle of the nest and took one nestling (V. Pravosudov pers. comm.). Lobkov and Zueva (1983, pages 30–33 *in* V.M. Galushin [ED.], Ecology of birds of prey, Proc. 1st all-union conference on birds of prey, Moscow, Russia) and Lobkov and Neufeldt (1986, *in* Proc. Zool. Instit., Acad. Sci., Moscow, Russia) noted bear claw marks on eagle nest trees although they did not state how high above ground level these occurred They estimated that terrestrial predators may have taken 9–10% of nestlings, although no specific instance of bear predation was documented.

Black bear (*U. americanus*) predation of eaglets has been observed in nests of Bald Eagles (*H. leucocephalus*) in the Yakutat region of southeast Alaska (P. Schempf pers. comm.), British Columbia (McKelvey and Smith 1979, *Murrelet* 60:106–107), and northern California (T. Bills pers. comm.). Black bears are also known to take fledglings of Bald Eagles on the ground (W. Bowerman pers. comm.). Bald Eagle nestlings have been killed in nests by wolverines (*Gulo gulo,* Doyle 1995, *Can. Field-Nat.* 109:115–116) and raccoons (*Procyon lotor,* P. Nye pers. comm.), and lynx (*Felis lynx*) may depredate the nests of White-tailed Sea Eagles (*H. albicilla*) in Norway (T. Nygard pers. comm.). Bears have been known to try to eat nestlings of other birds (e.g., Dixon 1927, *Condor* 29:271–272), but studies of bear diet suggest that birds are rarely eaten (e.g., Holcroft and Herrero 1991, *Can. Field-Nat.* 105:335–345).

Although other carnivores occur in this area, the large size of older nestlings (sometimes >7 kg) probably deters some from eating nestlings. Steller's Sea Eagles do suffer egg predation by stoat (*Mustela erminea*) and sable (*Martes zibellina*) in Kamchatka (Lobkov and Zueva 1983, Lobkov and Neufeldt 1986). Galushin (1983, *in* N.V. Elisee [ED], Red data book of Russian Federation, Rosselkhosizdat, Zhivotnie, Russia and 1984, *in* A.M. Borodin [ED.], Red data book of the USSR, rare and endangered species of animals and plants, 2nd Ed., Vol. 1, animals, Lesnaya Promyshlennost, Moscow, Russia) mentioned mustelid predation but did not say if it was on nestlings.

The nests of *Haliaeetus* eagles are generally very large and often inaccessible. In much of its range, Steller's Sea Eagle nests are often on high, vertical cliffs or in the tops of tall (sometimes dead) trees. The nest size and placement often contributes to its inaccessibility and probably reduces predation by ground predators, like wolves (*Canis lupus*) We do not think that predation by bears or any other predator causes a large reduction in the number of Steller's Sea Eagle fledglings produced each year in the Magadan region. Prey availability and human disturbance are probably more important factors.

Lobkov and Zueva (1983) have suggested that the activities of researchers may attract predators to Steller's Sea Eagle nests. This link between the presence of humans and nest predation has been established in other species (Grier and Fyfe 1987, pages 173–182 *in* B.A. Giron Pendleton, B.A. Millsap, K.W. Cline and D.M. Bird [EDS.], Raptor management techniques manual, Natl. Wildl. Fed., Washington, DC U.S.A.). It is unlikely that the predation we observed was linked to human activity near the nest because the nest site was very remote and had not been visited by us before in the season.—**M.J. McGrady, Raptor Research Center, Boise State University, Boise, ID 83725 U.S.A., E. Potapov, P.O. Box 239, St. Petersburg 196105, Russia and I. Utekhina, Magadan State Reserve, Portovaya 9, Magadan 685014, Russia.**

J Raptor Res. 33(4):343–344

OBSERVATION OF A DOUBLE-TOOTHED KITE (*HARPAGUS BIDENTATUS*) HAWKING BATS

The Double-toothed Kite (*Harpagus bidentatus*) inhabits neotropical forests from southern Mexico to southeastern Brazil and eastern Bolivia (Brown and Amadon 1968, Eagles, hawks, and falcons of the world, McGraw-Hill, New York, NY U.S.A.; del Hoyo, Elliot and Sargatal 1994, Handbook of the birds of the world, Vol. 2, New world vultures to guineafowl, Lynx Edicions, Barcelona, Spain). It feeds mainly on insects and small reptiles, and sometimes follows monkey troops, preying on insects and other small organisms startled into motion by primates (Boinski and Scott 1988, *Biotropica* 20:136–143; Egler 1991, *Wilson Bull.* 103:510–512; Fontaine 1980, *Auk* 97:94–98; Greenlaw 1967, *Auk* 84:596–597; Terborgh 1983, Five New World primates, Princeton University Press, Princeton, NJ U.S.A.). In Guatemala, M. Schulze (pers. comm.) found that insects comprised 61.6%, lizards 39.1%, and birds, bats, rats and snakes together <1% of the total (N = 540) identified prey items of seven pairs of kites during the 1992–96 reproductive