agriculture that benefit large insects the kites feed on while nesting (Parker and Ogden MS). The ecological similarity of the two *Ictinia* kites, especially concerning diet and foraging habits (Wetmore 1965, Brown and Amadon 1968), suggests that nesting *I. plumbea* might also respond positively to the extensive agricultural activity in the Pacific lowlands of Middle America or elsewhere.

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Some blood characteristics of White-crowned Sparrows during molt.—The number of erythrocytes in birds varies in some species with the sex and age of the bird as well as with the season (Sturkie 1965, Avian Physiology, Ithaca, New York, Cornell Univ. Press, pp. 1–5). In the White-crowned Sparrow (*Zonotrichia leucophrys gambelii*), an intracontinental migrant of Pacific North America, the packed erythrocyte volume (hematocrit) decreases significantly during both the prenuptial (Mar, Apr) and postnuptial (Jun, Jul, Aug) molts (Fig. 1, Table 1). In fact a weak negative correlation exists between hematocrit and the intensity of molt in this species ($r = -0.6$; $P < 0.001$) (deGraw 1972, unpublished Ph.D. dissertation, Pullman, Washington State Univ.). Molt involves extensive vascularization in the growing quills. The decrease in hematocrit might be attributed simply to increased plasma volume without a fully compensatory increase in total erythrocyte volume, as rates of water consumption increase substantially during molt (Chilgren 1975, unpublished Ph.D. dissertation, Pullman, Washington State Univ.). There is no rationale for a decrease in the total number of erythrocytes during the molt. To test this hypothesis, erythrocyte numbers were tabulated in 30 captive White-crowned Sparrows during their postnuptial molt.

Birds of undetermined sex and at various stages of postnuptial molt were maintained outdoors or indoors at 15°C (LD = 16:8) and sampled at the end of their real or subjective day. The blood sampling technique for small birds was reported by Kern et al. (1972, Gen. Comp. Endocrinol. 18: 43). Duplicate counts were made from each blood sample and the average value recorded. When two counts differed by more than 50 cells per grid, another duplicate count was made. The stages of postnuptial molt at which samples were taken and the respective mean values for erythrocyte numbers are reported in Table 2. Prior to the molt the means were comparable to those reported for other species (Sturkie op. cit.) and perhaps in the lower range. Erythrocyte numbers appeared to increase throughout molt, although the increase was not significant. At stage 5 (after molt) erythrocyte numbers increased significantly compared with stage 0, suggesting that erythrocyte numbers as well as plasma volume must increase during molt, as an invariant or decreasing plasma volume would have resulted in small to large increases in hematocrit, respectively, unlike that found in feral and captive birds. No information exists as to the presence of blood-borne hemopoietic factors that might be responsible for erythrocyte proliferation during the molt in passerines.

Because the hematocrit decreases in White-crowned Sparrows by about 14% at the peak of postnuptial molt (deGraw op. cit., see Table 1), the estimated increase of total blood volume is thus 14%, assuming no changes in the erythrocyte population (number or volume per cell), but the erythrocyte count increase of about 53% between stages 0 and 3 of postnuptial molt (Table 2), indicates that the increase in total blood volume must be greater than 14%. Assuming no changes in volume per cell or in plasma volume, the hematocrit resulting from a 53% increase in cell count at the peak of postnuptial molt in captives not distributed into molt classes (hematocrit = 38%; see Fig. 1) should be $[(0.53)(0.38) + 0.38]100 = 58\%$.

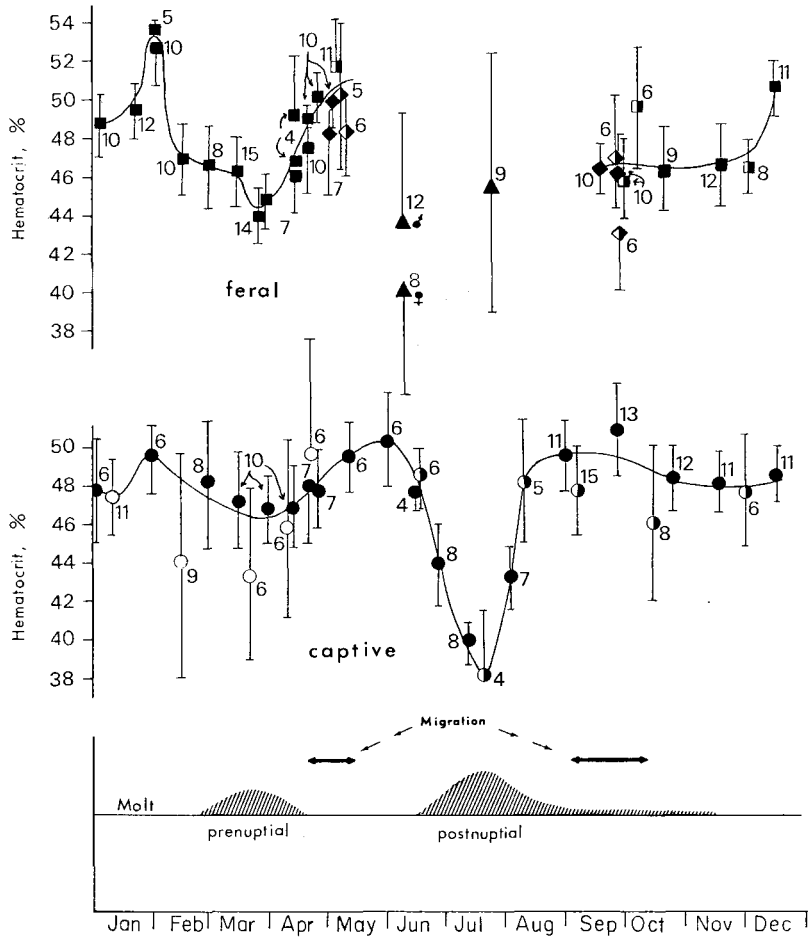

Figure 1. Hematocrit in captive and feral White-crowned Sparrows. Means, 95% confidence intervals, and sample sizes are presented for 1967 (half-darkened symbols), 1968 (darkened symbols), and 1969 (open symbols). ○ = captives in outdoor aviaries in Pullman, and sacrificed between June 1967 and April 1969; □ = feral, wintering flocks taken from the Snake River Canyon between September 1967 and May 1969; ◇ = feral, migrating flocks captured near Pullman; △ = feral, breeding flocks taken from populations near Fairbanks, Alaska, and Hart's Pass, Washington. Birds are not distributed into molt classes as in Table 2.

The fact that the measured hematocrit is only 38% suggests that the actual increase of blood volume at the peak of postnuptial molt is about 20%.

That the erythrocyte count continues to increase throughout postnuptial molt (Table 2) while the hematocrit is recovering from its midmolt nadir (Fig. 1) suggests that late-molt and postmolt adjustments of the cellular and fluid compartments of blood are not synchronous. It can be surmised that studies continued longer into the post-molt period (Table 2) would have revealed a restoration of the erythrocyte count to the nonmolting level (2–3 million cells/mm^3), just as hematocrit is also restored to the nonmolting level (deGraw op. cit., see Fig. 1). It is possible that elevated erythrocyte counts after molt might arise from the trauma of handling or successive bleedings. Use of different birds for each molt stage should resolve this problem.

Concomitant tests on the clotting time of blood were also made because the potential for damage to the quill and consequent bleeding is substantially increased during the molt. A reduced clotting time may, therefore, represent a beneficial compensatory response during molt. At time zero a drop of whole blood

TABLE 1

HEMATOCRIT IN CAPTIVE AND FERAL WHITE-CROWNED SPARROWS DURING MOLT

Molt Stage[1]	Postnuptial Molt		Prenuptial Molt	
	Captive[2]	Feral[3]	Captive[2]	Feral[3]
0[4]	48.4 ± 2.66 (12)[5]	—	45.2 ± 7.25 (13)	50.8 ± 3.35 (30)
1	42.0 ± 2.72 (8)[6]	—	48.5 ± 2.10 (15)	46.1 ± 3.00 (12)
2	42.0 ± 5.42 (4)[6]	—	45.8 ± 2.87 (4)[7]	44.5 ± 2.88 (6)[6]
3	43.6 ± 2.84 (10)[6]	—	46.0 ± 3.68 (27)[7]	45.6 ± 2.81 (43)[6]
4	50.3 ± 4.06 (17)	46.0 ± 2.74 (19)	46.4 ± 2.72 (10)[7]	46.6 ± 1.85 (13)[6]
5	48.2 ± 3.14 (21)	46.2 ± 2.77 (26)	50.1 ± 4.32 (19)	49.6 ± 4.05 (26)

[1] See Table 1 for characterization of molt stage.
[2] Birds caged individually outdoors during 1968 and 1969 in Pullman, Washington; blood collected by cardiac puncture.
[3] Birds taken from the Snake River Canyon in southeastern Washington; cardiac puncture taken less than 1 hr after capture.
[4] Hematocrit at stage 0 determined within 2 wk of molt.
[5] Mean hematocrit ± SD (N in parentheses).
[6] Mean differs significantly ($P < 0.05$) from stages 0 and 5.
[7] Mean differs significantly from stage 5 only.

TABLE 2

ERYTHROCYTE NUMBERS IN WHITE-CROWNED SPARROWS DURING POSTNUPTIAL MOLT

Molt Stage	Stage Characteristics	Mean ± SD
0	Before molt	2.76 ± 0.19 (3)[1]
1	Primaries 1–4 and spinal tract molting	3.94 ± 0.85 (6)
2	Primaries 5–7, tertials thoracic, capital, and spinal tracts molting	3.79 ± 0.48 (6)
3	Primaries 8–9, secondaries, femoral, and crural tracts molting	4.24 ± 0.68 (5)
4	Primary or secondary molt completed	4.18 (2)
5	Body molt completed	4.73 ± 0.30 (8)[1]

[1] Means in millions per cubic millimeter (N in parentheses); $P < 0.001$ between molt stages 0 and 5.

was transferred directly from the bird to a glass slide, and a fine-tipped glass rod was repetitively passed through and away from the blood drop until the visible formation of a fibrin thread suspended from the rod. The time to thread formation was called the clotting time. Clotting time ranged from 0.25 to 0.50 min with a mean of 0.35 ± 0.10 (SD) min in the 23 birds sampled, no significant differences in clotting times were noted between any of the molt stages with this technique.

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Great Egret preys on sandpiper.—At 1740 on 18 May 1973 at Brigantine National Wildlife Refuge, Oceanville, New Jersey, I saw a Great Egret (*Casmerodius albus*) capture an unusually large object. Immediately the egret flew about 50 m to a shallow pool where it was in full view. I could see that it had caught a sandpiper that I was unable to identify, though Least Sandpipers (*Calidris minutilla*) were plentiful in the vicinity.

After landing, the egret repeatedly dropped and picked up the sandpiper until it hung limp in its bill. Repeated attempts at swallowing were followed by coughing-up motions. Occasionally, the egret dipped the sandpiper in the water before resuming swallowing attempts, which were hindered by the sandpiper's wings catching on the outside of the egret's mouth. At 1754 the sandpiper's viscera hung from its skin and at 1758 it was swallowed. The egret then drank several times and wandered off. I have found no mention in the literature of Great Egrets preying on other birds.—ROBERT REPENNING, *327 Hickory Lane, Haddonfield, New Jersey 08033.* Accepted 6 Oct. 75.