

## THE FIELD, THE MEWS AND THE BREEDING CHAMBER

## A FALCON FOR THE BUSH

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TIERCEL PEREGRINE, FEMALE APLOMADO

If you could rename this falcon, what would you call a raptor of such incongruity? Even with its soft feathers, long train, short primaries, deep secondaries, bottle shoulders, long narrow body, fine-boned feet, it still looks like a falcon. Conventionally named the Aplomado falcon (*Falco femoralis*), in South America one of its common Spanish names is Perdillero or Partridge hunter, and the highland Indians, the Quichuans, call it Womang (pronounced (wah-mang). Couldn't we just call this thing the "near-falcon"?

Coloration is dramatic, like its relatives the orange-breasted (*Falco deiroleucus*) and bat (*Falco ruficularis*) falcons, with some orange on breast, thighs and coverts. Measurements of my two females are similar: 38 cm or 15" - body length of bird sitting on the fist; 18-1/2 cm or 7-1/4" - tail measured from body to tip of decks; 7 cm or 2-3/4" - foot on flat surface inner toe to rear toe, talons excluded; 82 cm or 32" - wing measurement with falcon cast. In flight one is reminded of a long-tailed peregrine that has been dieting to extreme.

The aplomado's social behavior would suggest that of the Harris' hawk. Probably few reasonable men would accept a description of its behavior and yet that, along with its speed, is what makes it so fascinating. Her high-strung, almost agitated, nature persists, yet if my falcon is not touched or hooded, she can be especially tranquil and will sit the fist by the hour as one goes about the house (though frequently snapping her head sharply sideways). Shortly after capture, she threw the hood while on an outdoor perch and then sat calmly eyeing the surroundings. This same reluctance to bate from perch or glove is true of our other aplomado.

Quite like a small boy deprived of his favorite toy, this falcon will stamp her feet if pressed. The difference is in the revolutions per minute --

no one will ever count the aplomado's stamp. She will stamp if approached on the perch or if jesses are handled on the glove. The first few weeks, when approached, she spread wings in a "v" attitude, spread tail and stamped, almost falling off the wall perch backwards. At that time the approach was made at an excruciatingly slow pace with garnished glove. Three months later she was still stamping and tending to fall off the edge of the perch, but by then she was bating toward me if I moved in too slowly. When fed on the lure she frequently stamps in anticipation as tidbits are offered. Both of these aplomados tend to grip the fist strongly when first picked up.

At most any weight the older bird sits about with feathers compressed while the passager fluffs out like an Accipiter in yarak -- strange difference. When eating they often hold meat up above the perch in one foot in a sideways position, turning it about like a monkey examining a nut. They are nimble at footing small morsels that are not swallowed easily out of their mouth. They also have the peculiar ability to roll their eyes around almost like some lizards.

On her first free flight she was as jumpy as ever, and I was so afraid of the transmitter disappearing over the horizon that I removed it. Yet she followed several of us about the desert, landing at our feet, appearing as tame as an imprinted duck, and responding immediately to fist or lure. Perhaps like the Harris', the aplomado transfers its natural tendency to associate and hunt with a mate to hunting with man.

Much of the behavior I describe in this article has also been observed by Oscar Beingolee and Luch Bertocchi, my hunting companions here in Lima, in both captive and wild aplomados they have seen over the past ten years. I have observed about 35 of these wild raptors and have recently had a chance of also flying my other aplomado, who has had a wing problem. We have located aplomados in the Andes east of Lima from approximately 2,000 meters in arid scrub-like terrain to over 4,000 meters where it is open and treeless, and also along the coast in northern Peru. They do not appear disturbed by rather close observation, showing only limited fear of man and commonly hunting around field workers. Both in the field and after capture, the tiercels appear more tame than the females.

The wild pairs we have seen generally hunt together, the tiercel usually flying first followed by the female. With some pairs the female will hardly allow the tiercel to fly three meters before she starts, yet with others she joins him in the area, makes some flights, then drifts off alone. If the prey is large, the female strikes and has been seen feeding her mate (Hector & Oscar).

#### Training

Although gregarious and accepting, her high-strung behavior has made it necessary to revert to maintenance training during the hunting season and to reestablish the approach by using tidbits. The pick-up off of the lure and the kill has had to be reinforced. In the field she is flown free of the field jesses because she catches many birds afoot inside cover. She also flies into and through cover at speed. My unscientific estimate is that 85% of her hunting behavior is Accipitrine and 15% Falco-like. The waiting on and single stoop, although brief, play an essential role in her successful hunting.

If much above a body weight of 340 grams, she will not come to the fist, yet her response to the lure is immediate and she will still hunt and tolerate our reflushing efforts, dog and all. She will also still follow us about the

desert by the hour, usually without being called. The 22-hour weight control system is used to control weight, which simply means that she is fed to a given weight the day before being flown.

In the early stages of flying this female, handling was facilitated by allowing her a few moments to calm after any activity; for example, a pause was in order after being picked up from the perch, etc. Her best behavior is always in the field where her gregarious nature secures a comfortable bond between man and falcon. The special joy of hunting with a bird that is attracted to man like the Harris' hawk more than makes up for the anguish of daily management.

During the first few months of hunting, she didn't spot birds in the distance and fly them; rather, we often spotted them with glasses and released her in an effort to make them seek cover. This was usually effective for mocking birds that had not been flown previously. On these long approaches, the field often separated and she followed me closely, often landing on the ground ahead as I ran. After several months hunting, she began to take longer slips.

On nonhunting days my aplomados are exercised by calling them from the floor to the high ceiling of our living room. I do this standing part way up a staircase. The passage aplomado will occasionally stop to hover on the way up and has no difficulty with this exercise. But again, our *Accipiter bicolors* perform the same ascent with stunning authority.

In regard to taming and training the aplomado, I feel the passage aplomado has developed at different paces. As mentioned earlier, she bites, foots, bates and at times screams if touched or hooded, and thus taming has lagged far behind the training aspect. Yet she threw herself into training, almost immediately responding to the lure as if mesmerized. Once I decided not to condition them to touching except when eating, I have had the best luck in management of the two birds. Once hooding and robbing of prey were dismissed, everything went much smoother. None of the locals considers using a hood on this species. The passage may store prey in the bushes to hunt again, but taking it from her is a strong negative.

Like a passage *Accipiter*, it is necessary to establish a flight or response weight before extended progress can be made. Five days after capture she was still bating in the car while hooded. We tried transporting her hungry, then fed, on the fist, on the perch -- no luck, bating continued. Finally, the sock was used reluctantly. After giving up the idea of hooding, I retreated to the use of the transport box. At home, before the hunt, she stepped demurely inside, but in the field for the first six months she reared out, flapping, biting, footing, and at times screaming.

At about three months she was transferred to a mew where she is kept free. After some initial battering of wingtips, she settled in, if an aplomado ever settles in. She jumps and flies about freely with some care of feathers now, but as the afternoon flight period approaches and her weight drops down, activity often increases to a frenzied pace. In the mew she remains shy and if I approach even slowly she retreats to a rear perch. In the wild these hawks are especially active during hunting periods. We have noticed that they seldom stay on a given perch for an extended time (Observations by Oscar and Lucho).

Hunting, like all other areas of her management, requires special care to avoid upsets. She is flown with anklets only. Snap-on jesses are used for handling.

### Hunting Behavior

Some years ago a member of the Chichuahuan Research Institute, speaking of the strange behavior of hand-raised aplomados, told of a falcon that sat on the ground until a bird it wanted was seen. It would then leap into the air, fly it down in a tail chase, devour it, return to their company in the field, and perch again on the ground. Little did I know that in the future I would witness just such curious behavior.

If not put on the fist for the reflush, even in the first few hunts this bird would perch on the ground three to five meters out of a bush where the dog and three or four of us would yell, curse, sweat and beat to flush. Some months later she selected an elevated perch for the reflush or would fly up to wait on.

We were all fascinated by her flight style in the mountainous terrain. Several times she came in above trap birds but, instead of stooping, dropped down fanning wings like a helicopter, shifting angles and attitude on the way. On the ground she often raced about afoot for some distance, at times "commuting" between bushes.

Often after flying a bird to cover, she "talks" to it in a low raspy voice as she searches in the bush. She also chatters to me as we walk after the hunt in the same tone.

Often, she is seen on a perch peering at the prey -- head low, body bent forward, crouched with tail held vertically and fanned, or head to the side -- much as Accipiters gawk in an exaggerated snaky-appearing stance. When landing on the ground she often runs to a stop on fully spread wings, then flips the train up vertically. Although hunting behavior is quite Accipiter-like, wing loading is not as light as the Accipiter bicolors that we fly in the same area and on much the same prey. Several times this falcon has flown close to the fist, reversed to fly backwards, then proceeded forward to the fist again. Whereas this sounds like an Accipiter, her flight is not as light nor is her acceleration as dramatic. She may be at ease in the bush but, unlike the Accipiter, she doesn't hold title to the real estate. We agree that her acceleration is superior to that of the two small peregrines that we also fly at small birds in the area. Our estimate is that she fits between the Accipiters and the falcons in acceleration.

The aplomado does not employ the repeated stoop. Like the gyrfalcon, the aplomado can "stand on tail" to follow birds up or gain a pitch and hover above cover to flush.

Most of the time when a bird drops into the top of a bush she roars in from the bottom. Less amusing is her tendency to defoliate tree canopies where birds have taken refuge. The result has been some foot injuries, and the cere is usually cut or bruised. On almost all hunts, released at the car, she will either follow perching on the ground or on bushes, or will sit the fist, free to fly as we walk. In the first few months, at some point she would fly off some distance only to return shortly. Other than this one exploratory venture she usually followed along closely.

The first bird she took was off the fist in a corkscrew tail chase through heavy cover. With increasing tameness, she began to tolerate the dog, a group flushing with sticks, etc. She learned to get back out of the bush as we approached for the reflush and seek a high position. Lastly she made increasing use of waiting on.

The long-tailed mocking bird (*Mimus longicaudatus*) has been one of our most sporting prey. They are about the size of a blue jay with a long tail. They live in semi-open desert, are fast, durable and most of them flush long before our arrival. We flew one for a 40-minute period that did not panic even during intervals where reflushes were closely spaced and relatively easy. She finally took it in a stoop from a waiting-on position.

At the reflush she enters into a stoop or is off on another tail-chase. If the prey decides that the distance is too great to the next cover, it may swing around to return where flushed. The falcon may stoop and strike the bird from the side or even head on. Like the desert falcons, she frequently strikes rather than clutches, and her strike can be devastating although it is usually only a light tap sending feathers cascading.

On rare occasions while waiting for a long reflush, she may fly insects. We have also seen wild aplomados hawking insects.

Some of the areas where we hunt have bushes that are 7 to 10 meters across and reach well over our heads. Two to four of us will enter these quagmires attempting to move the birds. In these situations, she usually zips up until reaching the altitude she wants for waiting on. Then she turns around sharply and begins to cruise about in some pattern. At times she waits on from a kestrel-like hover, perfect "pie cutter" circles, back and forth up and down wind, down through and about trees and cover, etc. She may stay up for a few seconds up to a few minutes. The mockingbird has an impressive acceleration edge on her, so in even moderate cover, waiting on can be imperative. In waiting on she appears to adjust height to fit the wind, cover and game, and she may change this adjustment frequently. The stoop is limited to a single dive, and if she fails to connect she scrambles into a sharp curve around and a tail-chase. She is quite accurate in the stoop and often disables birds in and between cover. It appears that she waits on at about 15 meters for mocking birds and 20 to 25 meters for ground dove, but again this is not consistent. Beating the bush with flushing sticks or sending the dog in often prompts the flight, as may running, but she responds poorly to the escape signal. When hunting we never have seen her stoop with wings folded; rather they are almost always whirring away like a wind-up toy out of control. It's a stunning sight to see her drop down in this strange flapping stoop to strike or launch into a tail chase with speed building.

When birds are overtaken during tail chases in the open, she does so with any of several movements. Wings and train are flaired, she comes in from the side or underneath, wings may be held back in a "V" attitude, body upside-down and feet thrust forward. We are never sure which of these attitudes she may use, but we do know that the "moment of truth" is varied. We have a few action photos of these strikes, and we are filming hunts with a VCR camera. In some of these filmed stoops, she turns from side to side with wings extending and flapping; in others, her tendency to "stand on tail" to secure a waiting-on position is emphasized.

To catch small or nimble prey in a tail-chase, *Falcos* usually depend on their superior speed to overtake, whereas the *Accipiter* often makes the catch at or just above the speed of the prey. The aplomado appears at ease using either of these mechanisms. We have seen many birds taken in the open with the *Falco* flying very near the speed of the prey.

Like an *Accipiter* or *Parabuteo*, she frequently curves up and over to slam into the prey and, unfortunately, the ground at speed. The dust flies but,

we hope, not her feathers. After collisions with the ground, bush or tree canopies, we have seen her stunned and almost unable to fly; yet her Kamakazi attacks continue.

Although she shows a strong preference for the croaking ground dove (*Columbina cruziana*), the same preference that Lucho and Oscar have observed in wild aplomados, while waiting on she will strike most any bird flushed beneath her. This has included 9 species from small seed eaters to the white-winged dove. She flies just above the speed of a strong ground dove in level flight, but we have seen a number of wild aplomados that obviously fly much faster than she does. Perhaps her speed is restricted because we are only able to fly her every other day and her feathers are rather tattered. By late in the season, her speed and power had become more dramatic.

#### Dove Hunts

The croaking ground dove is just larger than the ground dove in the U.S. Their call or song (not the coo or our dove) sounds more like stepping on a frog, and stray birds scattered about the bush may begin to make their little "music" while we are in midst of a flight as if oblivious to our presence. A fast bird, this dove may attempt to escape the falcon first in a long flight with evasions, then a retreat to cover. The dove's greatest bursts of speed occur as she drops down inches above the ground in these chases.

We've seen the falcon fly up to passing groups of dove until one or more drops down to the bush. Hector has observed pairs of aplomados that fly up to intercept incoming white-winged and mourning dove. Imagine the speed and endurance involved in such a feat! The fastest doves are the adult males that are relatively heavy with a slightly recessed keel; intermediate are the other males, the females and the immature; and slowest are the infirm adults and very young just out of the nest. As difficult to catch as these dove are on the wing, it seems strange that they all seek cover when pressed in a long flight. In the bush the aplomado enjoys a distinct advantage due to her superior footing ability.

On a typical hunting day, we park near a farm with long rows of tall trees, cultivated grass and scattered bush in an area of open sand dunes. The farming area extends toward the south, with the desert on the other side. The ocean lies just to the west, with a prevailing breeze drifting from that direction. The weather is usually misty and overcast with mild temperatures. Here dove loaf during the day and roost at night. In this locale, the falcon waits on beautifully, dominates the prey with her stoops and headlong bursts of speed and by powering into cover to catch or scramble about on foot.

Out of the box, she perches on the ground at our feet, watching as we begin to search for birds with glasses. If a dove flies by, she leaps up and drives it back to the trees after some maneuvers over the open desert. As we run in to watch and reflush, she begins to fly first one dove then another, but seldom uses waiting on in these first few minutes of flight. With ground cover too heavy for a lone aplomado to score easily, after 5 to 10 minutes of random flights she seems to remember her faithful slaves and begins to watch us. She then takes stand on top of the tallest trees or waits on in the breeze as we walk along the row of trees, tapping gently with flushing sticks and calling out the escape signal when a bird is flushed.

When a bird is flown to cover, if the falcon pleases she begins to wait on. She may fly in perfect circles high above, or back and forth into the wind,

or some erratic pattern -- at times, she will race along just above our shoes popping up now and again to see and be seen. Likely she'll race down past us occasionally but, no matter what, she'll be flapping, flapping, flapping -- looking like an anorexic peregrine with a long tail and a dramatic white tie bar across the top of the secondaries. As we are standing on opposite sides of the cover, we communicate in terms known only to the dedicated rat hunter. It usually goes, "OK, she's ready to flush, Flush, Flush, Flush, No, Wait, Don't flush, OK, Flush here she comes, Oh hell where is she?" Then she whips in at tree-top level to drop in behind the dove and, pumping hard, begins a race across the open to the next tree. The dove drops low, then curves up to plunge into a tree canopy, and we hear the thwack as she strikes at full bore. We run to see her drop out of the tree to eat on the ground.

If the group or dog stays close by, she will become nervous, jumping about on the ground, watching and eating erratically. Normally she may move about one meter but doesn't carry; however, if strangers appear or hawk with us, she may carry for some distance but never to a tree, always eating on the ground.

To pick this bird up when eating a kill is not always easy. She can be picked up when eating the head and neck or, later, after depluming and eating the body. The problem with the pick-up is her disdain for any meat that is not from a freshly-killed bird. Even in the mew she resists the pick-up using meat that has been refrigerated. If the visitors leave, she may eat the bird quickly consuming intestines and all but the feathers with obvious disdain for sand and soil.

She may eat head and neck, stash the kill, and return to our feet to hunt some more. One day she cached two birds in a row. We would like to know what triggers this behavior, but thus far we're unable to comprehend. We note that she appears ill at ease just before caching, often carrying the prey for short distances before tucking it into a low-growing weed.

#### Summary

Certainly few falconers would profess understanding of a new species after flying only one falcon through a season. Reading the insightful and fascinating research of Hector, talking to friends, observing them in the wild, studying our VCR tapes has only broadened the window. However, I won't let mere logic stop me from making a summary of this particular hawk. Added to my limited background is also a prejudice formed after years of searching for the perfect hawk for pursuit of difficult-to-catch small birds. The aplomado represents a significant step in the direction of that ambition.

Her liabilities are: 1) She waits on at a low level and as she pleases. At the end of the season, she went for about 80% of the reflashes, but we have not as yet been able to send her up strictly on command. 2) She makes a single stoop with whirring wing (rather than the long powerful, folded-wing stoop), followed by a tail chase, no toss-up like other *Falcos*, which reduces the beauty of the pursuit. 3) She remains high strung and difficult in daily handling (though this fault is muted slightly by her gregarious nature). 4) She prefers small prey, though other aplomados obviously take larger prey. 5) Feet and leg scales are delicate, and she would probably not do well tied to a perch. 6) She is erratic in the field, her hunting style changing from one day to the next (though she always seems to catch a bird or two).

On the other hand, her assets are: 1) The aplomado's speed in level flight is commendable. 2) She is gregarious and stays close to the falconer, even searching for him after eating a kill undetected. 3) Her acceleration is between that of a peregrine and an Accipiter. 4) Her footing is again somewhere between Falco and Accipiter. 5) She shows persistence; once selecting a bird to pursue, she locks in, entering a near demonic rage, using speed, endurance and footing in a combination of abilities not easily matched.

This species cannot be used in the U.S. and Mexico for the northern subspecies is now on the endangered list because of egg-shell thinning. It is listed as a common hawk in Peru by their Department of Agriculture. We found it thinly scattered, perhaps migratory, but we do know of one area in which a single or pair can be seen every 5 to 6 kilometers. Domestic breeding could make it available in the U.S., but the Peregrine Fund of Cornell reports it is difficult to breed.

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#### THE CONSTANTS OF FALCONRY

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During the years I've spent in the field, I've noticed there are constants in falconry that are not adequately addressed in falconry manuals. For the edification of apprentice falconers and the enjoyment of the rest of the falconry community, here are a dozen of these constants of falconry of the "You can count on it" syndrome.

1. Hawks will tree-sit. By using the following formula the amount of time a bird will spend tree-sitting can be calculated. Simply multiply the number of strangers present by 5 minutes (e.g., 4 strangers x 5 minutes = 20 minutes of serious tree-sitting).

2. Although the actual minutes a hawk tree-sits can be measured, the length of time experienced by the falconer with the recalcitrant hawk is complicated by the importance of the strangers with consequent modifications to the calculation. Thus, according to the preceding formula, 3 strangers should lead to the expectation of 15 minutes of tree-sitting. However, if the 3 strangers happen to be two master falconers and a state wildlife official conducting the falconer's field trial for his promotion to general falconer classification, the correct formula for tree-sitting would be modified to read -- the number of important strangers times 15 minutes (e.g., 3 important strangers x 15 minutes = 45 minutes of tree-sitting).

Some falconers have told me they spent a "lifetime"\* frantically whistling, waving the glove and swinging a lure to call in a hawk while important persons looked on. I can assure you this is a gross exaggeration and is probably due to time warp -- a subject I won't go into.

3. During a hawk's first manning session, every falconer will sooner or later encounter a little old lady from the Audubon Society. Upon meeting said Auduboner, the falconer's hawk will immediately begin bating madly -- end up dangling from the fist, tail higher than head, gasping for breath and casting tortured glances at one and all. The falconer can expect a complete dressing down about cruelty to animals, the evils of falconry and a promise of being reported to the S.P.C.A. and the state game commission. The lecture will be