

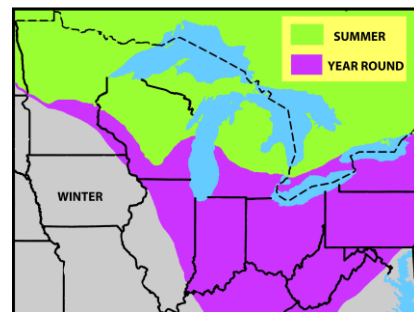
Wisconsin Wildlife *Fast- Facts*

Compiled from various sources by Christian W. Cold, WDNR Ladysmith

The Short-winged Hawks.... birds that eat birds.

Of the twelve species of hawks that occur in our region, three have developed an often-undeserved, but long-standing reputation as merciless marauders at the bird feeder and poultry yard. Falconers call them short-wings. Farmers called them chicken hawks. Biologists call them accipiter hawks.

Nervous, high-strung and temperamental creatures, they are rarely seen by the casual observer. They are secretive birds of the forest canopy and edge, where they hide amidst the crags and shadows....sprinting-out in sudden, fearsome dashes after unsuspecting prey. The sight of an accipiter in full-chase will take the breath from your lungs!



(Summer range is primary breeding range)

Sharp-shinned Hawk *Accipiter striatus* (true hawk) (striped)

Vernaculars:

Pigeon Hawk, Sparrow Hawk, Bird Hawk, Chicken Hawk, Fowl Hawk, Bullet Hawk, Slate-colored Hawk, Little Blue Darter, Sharp-shin, Sharpie.

Description:

Male is smallest hawk in North America.

Robin to jay-sized forest hawk with broad, rounded wings, long tail and legs.

Adult dorsal is bluish-gray with several dark bands on tail.

Whitish ventral has fine horizontal, rusty barring.

Juvenile upper surface is brownish with dark brown barring on tail.

Whitish undersides with multiple brown, vertical streaking.

Greatest sexual (size) dimorphism of any North American bird.

Female: 4-7½ oz. (144-208g.) and 13" long.

Male: 3-4½ oz. (82 - 125g.) and 10" long.

Voice:

A rapid, staccato, high-pitched chatter.... "bik-bik-bik..." ...almost "peep-like".

Very similar to the voice of a northern harrier (marsh hawk)....but more rapid.

In Flight:

Lightweight, buoyant & highly maneuverable....able to make sudden turns.

Quick (snappy) flaps interspersed with brief glides.

Although usually quick and direct, bird often appears anxious, making constant minor wing adjustments.

Range:

Species is widespread in N. America, C. America, S. America and Greater Antilles.

Seven recognized subspecies in N.A (ours is *A.striatus velox*).

Cluster of abundance (epicenter) of range is eastern provinces of Canada.

Home Range and territory:

320 acres per nesting pair (Wyoming).

2,750 hectares per pair

Note: The above figures (and all population density estimates) will depend on local habitat quality variables with food and shelter being the most probable influencing factors. CWC

Origin and prehistory:

"Accipitrine" hawks first appear (as fossils) in early Pleistocene (3MYA) deposits.

Buteo hawks were on the scene much earlier.

History:

1928 - Primary target of popular hawk-shooting campaigns in Appalachians, Adirondacks and eastern seaboard. In one day a small group of shooters took 90 sharp-shinns, 16 goshawks, 11 Cooper's hawks, 32 red-tails, and 2 duck hawks (peregrines) in a few hours.

Habitat:

Breeds in boreal (coniferous) forest (spruce, fir, hemlock, pine).

Variable forest types when migrating & wintering.

Diet:

Primarily (95%) small passerine birds (sparrows to robin-sized).

Occasionally mice, bats, large insects (grasshoppers and moths) and frogs.

Behavior:

Most hunting is done early in the day.

Shy and retiring during summer (rarely encountered).

Anxious, temperamental, subject to fits and seizures in captivity.

Popular, outdated (published) descriptions of bird and its reputation:

"...reckless audacity of this little, feathered bandit".

"This murderous little villain will destroy all small birds unfortunate enough to live within its hunting grounds."

"...bold and dashing little hawk, this terror of all small birds and the audacious murderer of young chickens,...."

Reproduction:

Some breed as yearlings, but most not until 2 years old.

Nest territory: 2-3 square miles

Nest site: In our area, typically a dense stand or grove of young or similar-aged spruce or balsam fir, near a clearing or border of a path.

Some preference for nearness to a water source.

Nest: Relatively flat (not deep), pencil-sized twigs, against trunk of tree at height of 30'-35'. Structure (12" - 14" dia.) is disproportionately large for a bird of this size.

Eggs: 4-5 (3-8), incubated 24-30 days.

Young: Branch at 21 days. Fledge at 28 days. (May prematurely fledge if disturbed.)

The best evidence of a nesting bird nearby is the presence of feathers and droppings at plucking posts (stumps, tree trunks, knolls, & upraised roots of fallen trees).

Compiler has found that nesting sharp-shins will often betray their presence when barred owl vocalizations are produced.

Movements:

Best known (most often observed) to average bird enthusiast as a migrant.

Mid-September is best time to view this bird at Hawk Ridge, Duluth.

Hawk Ridge, Duluth Statistics

Earliest date: Aug 5th Latest date: Dec. 8th

Peak migration: 1 Sept.- 20 Oct.

Record daily: 2,040 on 8 Oct. 2003 Record season: 22,344 in 1997

Special adaptations and limitations:

Swiftness, accuracy and extreme dexterity often makes observation of a hunting bird "*too quick for the eyes to follow*".

Shorter wings enable easier (snap-judgment) maneuvers within a forest canopy.

Long, slender tarsus and toes enables hawk to snatch ("*foot*") birds in flight.

Mortality and disease:

As with all accipiters, highly susceptible to fungal pathogen *Aspergillus* (aspergillosis).

Rigors of migration (following a highly-mobile food supply) takes a significant toll.

Few sharp-shins live beyond 5-6 years.

Life Span:

10 years (13 year captive reported).

Captive management and falconry:

Nervous, high-strung, tightly-wired, schizophrenic little nightmare in a captive setting.

Quickly ruins its plumage and cere (fleshy part of upper bill) in a cage.

High maintenance bird – only for serious handler with lots of time and patience.

Described by prominent Antigo raptor rehabilitator as "horrible to manage in captivity".

Primary (ideal) quarry is English sparrows and starlings.

Best flown in situations where repeated flushes and short chases are likely.

Doves and snipe usually outfly the hawk (long chase may result in loss of hawk).

Imprint female birds are the best choice for novice falconer.

Damage and abatement:

Little concern regarding poultry due to hawk's small size.

Where songbird mortality at feeders becomes a concern...I often pose the statement to a client.... "*It looks like you set the table and uninvited guests came to dinner*". Small poultry (chicks and poults) and gamebirds (quail) should be securely caged.

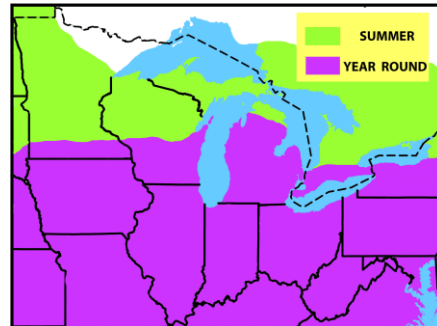
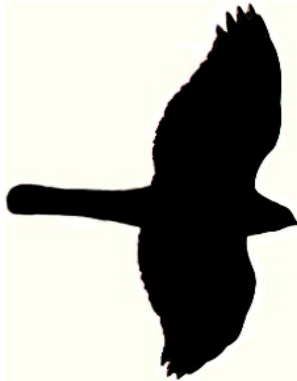
Conservation Status:

This bird's status is poorly understood due to its shy and retiring nature when nesting.

Migration counts suggested some declines in the east during the 1980's & early 1990's

however factors which retain birds in northern areas (climate and feeders) have not been sufficiently studied. Recent migration counts at many sites suggest a general decline, however count numbers are difficult to assess due to many variables and biases.

A recent global population estimate of > 1,000,000 birds.



Cooper's Hawk *Accipiter cooperi*

(true hawk) (Naturalist William Cooper)

Vernaculars:

Big Blue Darter, Chicken Hawk, Long-tailed Chicken Hawk, Pigeon Hawk, Hen Hawk, Mexican Hawk, Black-capped Hawk, Quail Hawk, Striker, Partridge Hawk, Pheasant Hawk, Swift Hawk, Bullet Hawk, Privateer, "Coop".

Description:

A crow-sized forest hawk with broad, rounded wings, long tail, legs and toes.

Adult: Dorsal blue-gray with long tail having multiple black bands.

Darkish "cap-like" crown is often noticeable.

Ventral is whitish with multiple horizontal streaks of reddish or rust.

Eyes orange to red.

Juvenile: Dorsal brown to tawny-brown with long tail having multiple dark brown bands.

Ventral is whitish with multiple vertical streaks of brown.

Eyes straw to yellow.

Male: 14" - 18" long and 8-14 oz. Female: 17" - 20" long and 12-25 oz.

In flight: Rapid pattern sequence of quick flaps and short glides.

Low, swift "dashing" flight, often below canopy where understory is sparse.

Voice:



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Males have higher pitched voice than females.

A rapid, repetitive "bek...bek...bek...bek." (anxiety-alarm response of bird on territory).

Range:

Widespread in forested or partially-forested habitats from southern Canada to northern Mexico.

Home Range and Density:

Nesting densities reported (central WI) of 1 pair/1,814 acres.

Other WI estimates of one pair/5735 acres and 4589 acres

History and status:

1900: Considered a common raptor throughout its range.

1937: Declines noted at popular migration observation (shooting) sites.

1951 through 1961: Declines observed at annual rates of 13%.

1960's: General declines reported throughout U.S.

DDT and DDE (a DDT metabolite) were causing reproductive failure due to thin eggshells (not embryonic defects).

Late 1970's - early 1980's: A striking increase in numbers reported in the East.

Regulations giving legal protection (US/Mexico Treaty of 03/10/72) and restrictions on DDT pesticide use (1972) were turning things around.

1989: Bird delisted from state-threatened to "special concern" in Wisconsin.

Origin and prehistory:

Recorded as a fossil in Pleistocene deposits of California, New Mexico and Florida.

Habitat:

Nesting birds seem to prefer a dense forest canopy with a relatively open understory. Coniferous, deciduous and mixed forests, suburban and urban settings (especially with bird feeders).

Diet:

Small to medium-sized birds (80%) from sparrows to ducks.

Especially fond of pigeons, doves, robins, flickers, blue jays and grackles.

Mammals from mice to squirrels (high risk of biting-injury) and cottontails.

Special preference for chipmunks and young squirrels/rabbits.

Occasionally robs other bird nests of young.

Habits and behavior:

Tenacious - will chase a rabbit into its burrow or pursue game on foot in heavy brush.

Crows are not tolerated in vicinity of its nest and are quickly driven-off.

Popular, outdated (published) accounts of bird:

"....does more damage in the poultry yard than all other hawks put together. It is very destructive to domestic pigeons, and if not killed, will soon clean out a colony. It soon learns where it can find a convenient supply of half-grown chickens or young ducks, to which it makes frequent visits, until its career is ended."

Reproduction:

Most common nesting accipiter across most of the lower 48 states.

Does not breed until 2 years old.

Reproductive cycle begins in late March to early April (WI)

Males are usually submissive to (or fearful of) females and will listen for reassuring call notes which indicate that she is willing to be approached.

Nest site: Typically in grove of white pines but may be in mixed or pure hardwoods.

Evidence of site occupancy (as in all accipiters) revealed by presence of plucked feathers (& mutes) on or adjacent-to ground knolls and downed logs in vicinity.

Nest: Often 30'-50' up in white pine (or hardwood near pines), near a forest opening.

Structure ~ 24" X 8" lined with bark flakes or chips, normally placed on 2-3 horizontal branches against trunk of tree.

4-5 eggs are down in mid-April to early May. Incubation is 30-32 days.

Young fledge at 5 weeks.

WI study revealed a turnover of adult breeders (in all nests) within 6 years.

Movements:

Fall: Hatching-year birds migrate 1st (and females before males).

Spring: Adults move through 1st .

Birds from western Canada appear to migrate east towards Wisconsin, (probably to avoid crossing the Great Plains).

Hawk Ridge, Duluth Statistics

Earliest date: Aug 15 Latest date: Nov 21 Peak Migration: 1 Sept.- 10 Oct.

Record daily: 45 on 14 Sept., 2000 Record Season: 356 in 1993

Cycle highs: 1972-(4,963), 1982-(5819), 1992-(2040), 2000-(1101) & 2001-(1107).

Special adaptations and limitations:

Short wings & long tail allow it to dart, twist & dodge in & out of canopy with impunity.

Flight speed 21-55 mph.

Dangerous (reckless?) hunting style results in a high incidence of fractured sternums (23%).

Mortality and disease:

Raccoons and horned owls are the most serious predators of adults (esp. incubating females) and nestlings.

77% - 82% mortality year 1

44% mortality year 2 through 8.

Life Span:

12 years. 20 years & 4 months reported for a captive.

Captive management and falconry:

Has bred in captivity ...however (as with all accipiters), males should not be housed with females (he never wins an argument and may be killed).

Typical breeding method is artificial insemination (as with all accipiters).

Nervous temperament makes it difficult to manage and maintain in good condition.

Often impulsive and explosive temperament....subject to fits and mood swings.

Imprint birds may later develop aggressive behavior towards handler and others.

Branchers (near fledge) and passage (1st. yr. migrant) birds typically less aggressive.

Aggression (for no apparent reason) is often directed at handler's face or hands.

Not the best choice for the "weekend falconer"... requires daily *refresher-handling*.

Entered on quail primarily, but exceptional birds may take cottontails & ducks.

Most refuse rabbits (extended ground-struggle and risk of feather breakage).

Female passage (1st. yr. migrant) birds commonly become "wedded" to a narrow range of preferred prey (and refuse others).

Damage and abatement:

Primary "culprit" at poultry yards (free range) and pigeon lofts.

Considers bird feeders a "convenience store" (*They are not there for the seeds.*)

Conservation status:

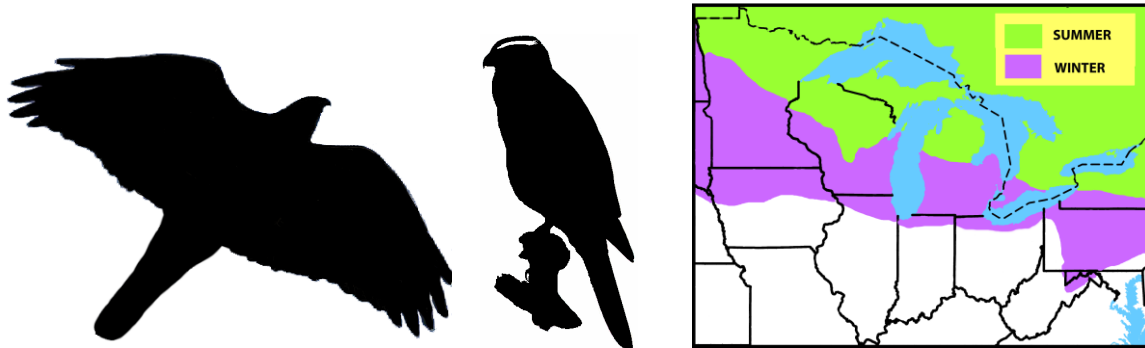
Shows great promise in its ability to habituate to urban environments.

Has recently become a relatively common, year-round raptor of most urban and suburban neighborhoods.

Recent migration counts suggest a slight population increase in the East.

The dark side of success:

Recent evidence suggests that the successful recovery of the Cooper's Hawk may be resulting in a reciprocal decline in American Kestrels. Cooper's hawks appear to be quite fond of kestrel flesh (and are fully-capable of catching them).



Northern Goshawk *Accipiter gentilis*
(true hawk) (noble)

Vernaculars:

Goose hawk, Blue Hawk, Blue Hen Hawk, Blue Darter, Pigeon Hawk, Partridge Hawk, Blue Partridge Hawk, Quail Hawk, Dove Hawk, Chicken Hawk, Gos (*abbreviated falconry jargon*). Gekek (Chippewa for hawk).

Description:

A large forest hawk having broad, rounded wings, fairly long tail and stout legs & feet.

Males: 21"- 23" and 25-39 oz. Females: 22.5"- 27" and 32-65 oz.

Adult is medium to dark gray (dorsal) with fine, light gray (horizontal) barring on whitish breast. Eyes are orange to red. White brow above eyes (looks like a "crown" when the bird is facing you and looking down).

Juvenile is brownish dorsally with underparts streaked (vertically) in brown.

Eyes are straw to yellow. White brow is not so pronounced (but evident).

Males weight 735 - 1,200 grams (average 1.72 lbs.).

Females weigh 845 - 2,200 grams (average 2.69 lbs.).

Four described subspecies in N.A. (10 worldwide).

In Flight:

Tends to fly with 5-7 rapid, robust flaps, followed by short glides on fixed wings.

Voice:



A high-pitched, piercing staccato - like the call of a pileated woodpecker - but slower and harsher.

Range:

Vast Holarctic distribution (northern forested regions around the globe).

In Nearctic (NA), montane and forested regions from Newfoundland to Alaska and south into northern Mexico.

History and status:

In the East population was severely reduced during late 1800's due to intense logging lack of protection (incl. bounties), and (probably) extinction of an important food source - the Passenger Pigeon.

Wisconsin: State-listed as Special Concern and a Species of Greatest Conservation Need.

Habitat-sensitive species (USFS) and low density breeder at southern fringe of range.

An uncommon resident with nestings reported in most northern and central counties.

Origin and prehistory:

Ancestral stem stock (presumed) to have arrived in North America from Eurasia via Beringia during the mid-Pleistocene. Molecular genetic studies have identified three regional clades in North America which resulted from geographic (and climatic) isolation (forest refugia) during the late Pleistocene.

The oldest established population (~ 21,000 BP) is in the Cascade-Sierra region. Next oldest (~17,000 BP) is in the American Southwest. Both eastern (includes Great Lakes) and Rocky Mt. populations established approx. 10,000 years ago when a warming (glacial melting) trend enabled rapid forest expansion (first spruce...then mixed conifer/deciduous) to replace tundra east and north into Canada.

Habitat:

Mature forests - Boreal areas w/willow & alder to north, alpine forests, conifer, deciduous (and mixed) woodlands.

Seems to prefer habitat edges or changes in forest composition (i.e.: where conifers and brush meet or where bogs and swamps interrupt a forest pattern).

Habitat modeling predicts that 7.6% of northern highland landscape in WI has >50% probability of being occupied by breeding goshawks.

Diet:

Although a prey generalist, some birds seem to prefer a few prey species.

Small to medium-sized mammals.

Snowshoe hare a staple in diets of most Canadian birds.

Birds of all sizes (sparrows to geese).

Wisconsin nest site evidence suggests a preference for (not in order of significance) grouse, *blue jays, red squirrels, chipmunks, grey squirrels and crows.

**Blue jays are slow fliers, are curious, inquisitive (nosey) birds and quite vocal....perhaps (at inappropriate times) getting themselves into trouble with their mouth. I often find (plucked) blue jay feathers at goshawk nest sites. CWC*

Grouse/Goshawk Issues

Studies from Minnesota suggest that when a seasonal or cyclic "movement" of northern goshawks erupts (south) into ruffed grouse range, a depression of grouse numbers may occur locally. Additional research is needed on grouse/goshawk population cycles (8-11 years) and their correlation with other contributing factors.

Habits:

May become "habituated" to 1 or 2 preferred prey species.

Those who have oriented themselves to rabbits may lose interest in chasing birds.

Prefers to hunt woodland edges.

Flight in pursuit of prey is typically an intense burst of speed, followed by a binding (grappling) maneuver, where the gos binds to the rabbits back or shoulders, or (if a bird) inverts at the last moment and seizes the prey from below (grabs breast).

When hunting it typically flies low, dashing along swiftly when crossing openings.

Temperament and behavior:

Typically a solitary bird (when not in nesting cycle).

Hunts lower in the canopy....usually from a perch.

Rarely initiates an attack during flight unless game is abruptly flushed at close range.

Attack is sudden, at tremendous speed, over a short distance.

Will (recklessly) crash into thickets or pursue prey on foot in heavy cover.

In the hand, some birds seem unconcerned....while others are shy and fearful.

Described as a "bold and intrepid hunter".

Female is highly-defensive at the nest site (primary defender). At such times, he is usually nearby (*shouting words of encouragement*) while she assaults the intruder.



-Adult female demonstrating to compiler that she is a good parent. (click & drag to enlarge)

Popular, outdated (published) descriptions:

"Savage, fearless and the merciless foe of poultry and game birds."

"This bold brigand of the north woods, the largest, the handsomest, and the most dreaded of the Accipiter tribe, swoops down, in winter, upon our poultry yards and game covers with deadly effect. He is cordially hated, and justly so, by the farmer and sportsmen: and for his many sins he often pays the extreme penalty."

Reproduction:

Typically mates for life but lost spouses are replaced.

WI birds are typically on territory by late February.

Males don't breed until 2 years old. Females may breed as yearlings.

Males appear to "hold" the site-tenure. One male at Mead Wildlife Area

(Milladore, WI) had 3 mates on the same territory over a span of 15 years.

Nest Habitat:

In Great Lakes, a "classic" scenario is mature (40+ yrs.), mixed forest (old sawlog-sized pine or hemlock with scattered over-mature aspen), on or near a slope and water source (esp. swamp or stream) nearby.

Nest tree: In WI usually in the largest available deciduous tree in vicinity, with strong preference (in descending order) for yellow birch, aspen, sugar maple and white birch. Sometimes in a pine.

Nest: Large (fully-stuffed bed-pillow) structure (18"- 24"W X 12"-14" D).

Usually at major limb node against the trunk.

Two to four eggs down in March are incubated (primarily by female) for 35-38 days.

Young branch at 34 to 37 days.

Males fledge at 35-36 days. Females fledge at 40-43 days.

Fledglings remain near the nest a few days, then wander further off each day.

Fledglings often quite vocal (hunger-ails) for several weeks.

They may remain dependent on parents for up to 42 days (then vacate territory).

(See Wisconsin goshawk species guidance link at end of document.)

Movements:

A majority of goshawks (worldwide) remain sedentary throughout the year.

Birds from northern latitudes periodically vacate to the south in fall in a delayed tandem with Canadian snowshoe hare cycles (8 - 10 year intervals).

Hawk Ridge, Duluth, MN experiences the largest goshawk flights in North America.

Hawk Ridge Statistics:

Earliest date: Aug 15 Latest date: Dec 11

Peak Migration: 10 October - 15 November

Record daily high: 1,229 on 15 Oct., 1982. Record season: 5,819 in 1982

Duluth cyclic-high years:

1972-(4963), 1982-(5819), 1992-(2040), 2000-(1101), 2001-(1107).

Special adaptations and limitations:

Highly sensitive to disturbance during nest building through early incubation period.

Intolerant of forest fragmentation near nest site. Prefers interior closed-canopy.

Mortality and disease:

Primary factor is starvation: 60-80% mortality rates reported for hatch-year birds.

33 to 40% mortality of 2nd year birds.

Horned owls, raccoons & fishers take incubating females and young.

"Frounce" (microorganism *Trichomonas gallinae*), which is endemic at sub-lethal levels in pigeons is a serious hazard for goshawks. Fortunately, feral pigeons and goshawks don't (typically) share the same habitats.

Aspergillosis (fungal)- especially in captive situations where birds are poorly managed.

Life Span:

Approx. 20 years in captivity.

Captive management and Falconry:

Captive breeding is possible but risky (especially for the male).

Sexes are usually housed separately due to intraspecific aggression.

Artificial insemination is the standard captive-propagation method with accipiter hawks.

Across Asia, from Turkey to Japan, the goshawk is more prized than any falcon as a hunting bird. In North America, its value (reputation and utility) has much-improved since colonial times. Here, it is entered on upland game birds (esp. pheasants and prairie grouse), waterfowl, cottontails and hares (including larger jackrabbits).

Hunting flights are typically initiated from a gloved fist.

This bird is not a good choice for the novice....or "weekend falconer".

Damage and abatement:

Due to its preference for remote areas, goshawks rarely come into conflict with most poultry operations. Hunting clubs may experience seasonal problems with migrants when releasing game birds (esp. pheasants).

Conservation status:

Today, uncommon to rare in most areas. Widespread but never dense.

In Wisconsin, primary threats appear to be habitat degradation, predation, falconry take (nestlings), & human disturbance on breeding grounds. In Wisconsin, Minnesota and Michigan state and federal forest and wildlife management officials are addressing these issues in a cooperative bioregional monitoring effort.

In parts of Europe the goshawk has demonstrated a tolerance to human activity, living in a matrix of agricultural and forest land.

The bird appears to be beginning to make a similar adjustment in parts of North America.

A final word....

It wasn't until after World War 2 that the accipiter hawks finally joined the ranks of other hawks as protected birds. Prior to that, Wisconsin, Michigan and Minnesota were offering a bounty on them. Even "hen hawks" (red-tails) were worth 25 cents! Pennsylvania offered 5 bucks for a goshawk during the 1st World War.

As of 2013 there continues to be a common, long-standing thread of sentiment with many people (sportsmen included) that there are "too many predators." Those of us entrusted with the custody and management of public wildlife resources hear this complaint over and over again. It seems that folks find little value in any animal which offers no direct utility or service....or... (by any measure) is competitive with our own interests. We even find fault in animals whose presence is a result of our actions (do you feed birds?). If an argument must be made to justify the existence of predators on a landscape.....let (one argument) be this:

The presence of predators is often a direct and immediate indication that a wildlife community is in a relatively good state of health and vigor. It may also be an indication that a particular prey population is in need of a "check". If the habitat is good, the prey will be there....and the predators will respond accordingly. We can use the presence or absence of predators as a measure of current conditions in a wildlife community.....provided that we are vigilant and thorough in our monitoring efforts.