

# Hawk Herbalists

by  
Jean Iron

Forest hawks such as the Northern Goshawk and Red-shouldered Hawk commonly adorn their nests with fresh green plant material. The choice of plants is not random and includes pine, hemlock, aspen and maple. The reason for nest decoration is much debated. Some observers thought that the greenery provided camouflage, insulation, shading and sanitation of the nest, but these hypotheses are largely unsupported. Nest decoration is most likely a territorial marker, but the greenery may also serve another important purpose.

Clark (1990) reported finding that the chemical properties of certain green plants helped decrease the effects of parasites such as mites on the nestlings of European Starlings. This also may play a role with hawks, but they have a different open nest ecology. The Red-shouldered Hawk may provide a clue to the puzzle of reason for the greenery. In Ontario, Red-shouldered Hawks often decorate their nests profusely with green hemlock sprigs, increasingly so once the young hatch (Dent 1994). Recent experiments by McDonald et al. (1995) suggest that volatile compounds (for example, cyanide) of certain green plants protect nestlings by repelling biting insects like mosquitoes and black flies.

Brian Naylor (e-mail) of the Ontario Ministry of Natural Resources, an expert on hawks, commented on the above: "To my knowledge, no-one has proven why hawks decorate their nests. However, I would be careful not to discount the alternative too quickly, that is, territorial advertisement. If the decoration only served to repel insects, why would hawks place decoration on their nests long before incubation and why would they decorate alternate as well as primary nests?...On another note, we also find conifer decoration on nests of Broad-wings and Red-tails, but rarely Cooper's (I haven't seen enough active Sharp-shin nests to comment). In my experience,



Northern Goshawk nest adorned with greenery  
by Christine Kerrigan

our birds rarely use deciduous foliage as reported in the US, especially for Broad-wings. However, we have seen hemlock, white pine, balsam and cedar used. I can't recall a nest with spruce but it is possible."

In summary, the placement of fresh greenery by hawks on their nests is probably a territorial marker, but it may also repel and be toxic to biting insects and reduce parasites on the nestlings.

## Literature Cited

- Clark, L. 1990. Starlings as herbalists: countering parasites and pathogens. *Parasitology Today* 6(11): 358-360.
- Dent, P. 1994. Observations on the nesting habits of Red-shouldered Hawks in York Region. *Ontario Birds* 12(3): 85-94.
- McDonald, B.A., W.S. Brooks and B.E.P. O'Connell. 1995. Possible insect repellent function of green leaves placed on nests by hawks. *The Passenger Pigeon* 57(1): 37-40.

## Bitter Berries by Ron Pittaway

It's hard to miss the clusters of scarlet berries against the backdrop of winter this year. The brilliant red berries are the fruit of Highbush Cranberry. Most garden centres and most books on landscaping for wildlife habitat recommend planting Highbush Cranberry to attract birds. The funny thing is that the scarlet berries hang on the shrub all winter. Birds don't seem to like them!

So do birds eat the berries of Highbush Cranberry? I asked veteran birder Dan Brunton of Ottawa who also is a botanist. Dan (pers. comm.) has never seen birds eating the berries, but added that there are two species (or varieties) of

Highbush Cranberry in Ontario: a native species (*Viburnum trilobum*), which grows mainly in wetlands, and a similar European horticultural species (*V. opulus*). The European form is the one not eaten by birds according to *The Shrubs of Ontario* by J.H. Soper and M.L. Heimbürger (1982) published by the Royal Ontario Museum. It says: "a species often planted as an ornamental in southern Ontario and occasionally found as an escape along roadsides and in woods...The fruits of *V. opulus* often remain on the bush all winter, and although they look as if they should be attractive to birds, they are apparently

scorned until other food is gone, and even then they are eaten reluctantly."

Being a survival or starvation food fits in with a report from Jim Wilson (pers. comm.) of Dorset who once saw a Ruffed Grouse eating the berries in late winter. As well, Ron Tozer (pers. comm.) of Dwight saw 15 American Robins feeding on Highbush Cranberry on 12 April 1992. There had been five inches of new snow overnight and the robins were hard-pressed for food.

Highbush Cranberry is an emergency food when other foods are exhausted. Plant a few, but not instead of guaranteed favourites like Russian Olive, Mountain Ash, elderberries and Eastern Red Cedar.