

The importance of molting

No, your swan didn't explode!

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Being involved in the Ontario Trumpeter Swan Restoration program, as well as a wildlife rehabilitator for Trumpeter Swans, I receive numerous anxious calls each summer when people haven't seen their usual swans but see a pile of feathers scattered on the shoreline.

They are worried that something has attacked the bird and are sure that there is an injured bird that needs immediate help. But this is actually a normal process called a molt and is something which all waterfowl do during the summer.

Waterfowl are slightly different from most other birds in that they molt all their wing feathers at one time, rendering them flightless for several weeks while they regrow them. Before they start the molt, swans will find a place that provides ample food as well as protection for the time they cannot fly. During the molt the birds will often spend a lot of time hidden from view.

Another interesting adaptation we see is that a mated pair of swans with cygnets will molt at different times so that one parent can always fly to defend the family and territory.

The molt process can be very startling for someone not familiar with it. Kim Stevenson has illustrated the dramatic difference through these two pictures (below) of P68 during (left) and after (right) his molt.





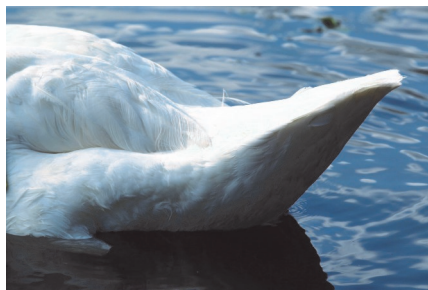
Left: *Worn and broken feathers.* Right: *Close-up of growing pin feathers with a visible blood supply.*

Feathers only last so long and will get worn and broken with normal use. Once the old feathers have been pushed out by the new ones coming in, you will see what are called pin or blood feathers emerging from the feather follicles. These look like a quill or spike and have a blood supply flowing through them. They are encased in a feather sheath made of a keratin coating. At the base, where the feather is developing and being nourished by blood, there is a dark bluish red color. Once the feather is fully formed the blood supply will dry up and the feather will no longer be living material, like our hair.



Left: *Preening is very important during molt as the bird removes the keratin shaft exposing the newly formed feathers.* Right: *With the sun behind the wing, you can see the blood supply at the base of the feathers.*

When you see a bird in the field, you may be able to see that it is in molt by looking at the tail. In the fully flighted bird, the tips of the primary feathers touch the tail and make a smooth rounded curve over the bird's back. In a molting bird, those feathers are not there, and the tail appears to stick up. So when you think your swan has exploded during the summer months it is probably just molting. ♦



Left: *Smooth curve of fully flighted bird*
Right: *The tail appears to stick up during molt*