



Volunteer Manual

Care of Nestlings and Fledglings

A Quick Reference Guide

Wildlife Rescue Association
of British Columbia

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Nestlings and Fledglings

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Preface

This manual is a supplement to the comprehensive volunteer manual already in use at the Glencarin Drive location of the Wildlife Rescue Association of BC. It is designed as a quick reference resource for mid-level and intermediate volunteers with a moderate amount of experience at WRA, and who have already had hands-on training in the tasks outlined in the manual.

Photographs and graphics included in this Quick Reference Guide may be helpful in describing certain tasks to those volunteers who speak English as a second (or third) language and will provide useful visuals for anyone who is interested in becoming more familiar with WRA and their practices.

Acknowledgements

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Key Terms

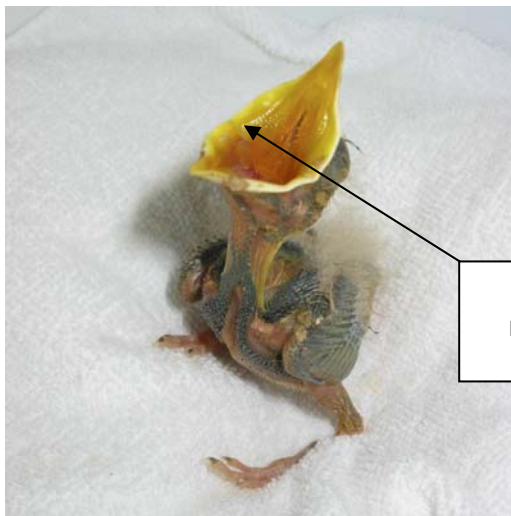
- ◆ *Acidophilus*: a bacterium in the form of a powder that aids in the digestive process which is given with food to young birds.
- ◆ *Altricial*: a type of bird which is dependent on its parents when young for both food and shelter.
- ◆ *Brooder*: a shelter for waterfowl (such as ducks) which is heated by a lamp and usually contains a pool.
- ◆ *Crop*: the pouch in the throat at the base of a bird's neck which stores food for digestion.
- ◆ *Crop stasis*: a condition that occurs when the crop fails to empty into the digestive system at a normal rate.
- ◆ *Fledgling*: a juvenile bird which is learning to fly and feed itself.
- ◆ *Gape*: an action which young birds make by opening their beaks widely for food.
- ◆ *Gape flange*: the brightly coloured tissue between and inside the top and bottom beaks.
- ◆ *Nestling*: a newly-hatched and helpless bird which is completely dependent on its parents for food and shelter.
- ◆ *Precocial*: a type of bird which is able to self-feed soon after birth.
- ◆ *Preen*: the way birds smooth or clean their feathers with their beaks.

SECTION 1: Altricial Nestlings

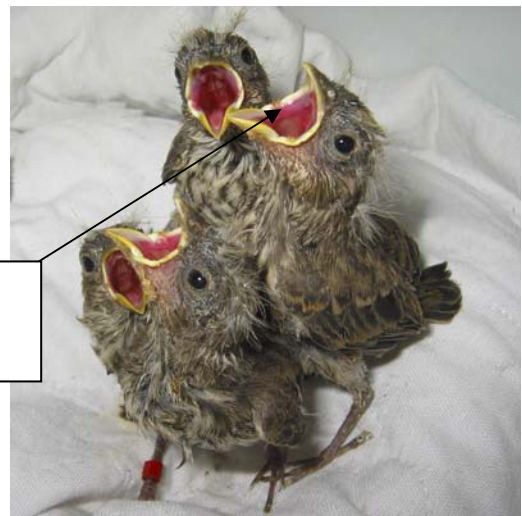
I. About Altricial Nestlings

What are altricial nestlings?

- ◆ Altricial nestlings are newly hatched birds too young and helpless to leave the nest.
- ◆ They are born featherless and unable to see or stand. Their beaks are very soft.
- ◆ Nestlings gape by opening their beaks widely for food.
- ◆ They have colourful gape flanges (the tissue between the top and bottom beaks) large enough to allow their parents' beaks to safely deliver food.
- ◆ As the nestling matures, the beak hardens and the gape flanges shrink and become less colourful.
- ◆ The nestling phase lasts from 10 to 20 days for most altricial bird species.



An American Robin nestling gaping for food. It is young enough that its eyes are still closed.



Finch nestlings gaping for food. Note their colourful gape flanges.

Gape
Flanges



Examples of altricial birds: robins, pigeons, crows, owls, and sparrows.

What do they need?

- ◆ Nestlings need constant cleaning, feeding, and monitoring.
- ◆ Nutrition, cleanliness, and appropriate housing are essential.

What do I need to know in order to feed them?

- ◆ A nestling's beak is soft and must be handled carefully.
- ◆ The glottis (opening to the trachea) is on the floor of the mouth behind the tongue.
 - ▶ *It opens and closes with each breath.*
 - ▶ *It closes when the bird swallows.*
- ◆ With nestlings, the closing action is imperfect and care must be taken to keep food from going down the glottis.
- ◆ To keep this from happening, put small amounts of food in the mouth at a time and place the food far in the back of the throat.
- ◆ Nestlings are separated according to age on different shelves and locations (BB1, BB2, BB3, and the brooder) in the nestling room (ISO #1).



The glottis.

II. Altricial Nestling Diets

What is the diet for altricial nestlings?

- ◆ Nestlings are fed species specific diets. Check the diet book for these diets.
- ◆ Warm nestling diets to room temperature before feeding.
- ◆ Give them only baby bird food.
- ◆ Keep nestlings' feathers and corners of the gape flanges clean.
- ◆ Do not leave any food or water in nestlings' caging.
- ◆ Remove any food from the gape flanges and the feathers with a Q-Tip and warm tap water.

What is their feeding schedule?

1. First feeding: 7:15 am by staff.
2. Nestlings are given a few mouthfuls of food and a few drops of vitamin water during the first feeding.
3. Then: every 15 to 30 minutes depending on the nestling's age. Older nestlings require less feeding than newly hatched ones.

4. During the second feeding in the morning and the second-to-last feeding at night: give each bird a small amount of acidophilus (a bacterium that aids digestion) by dipping a small amount of food into the acidophilus powder before feeding.
5. Sign your initials on the Baby Bird Checklist on the wall in ISO#1.
6. During the third feeding in the morning, at noon, at 4:00 pm, and at the third-to-last feeding at night: give nestlings located on BB2 and BB3 a feeding of mealworms, and nestlings on BB1 a feeding of bloodworms.
7. Every 4 hours: replace baby bird diets, thoroughly clean the cages, and give the nestlings a feeding of mealworms or bloodworms according to their location as in the step above.
8. Sign your initials on the Baby Bird Checklist on the wall in ISO#1.
9. Last feeding of the day: give nestlings Baby Bird formula.
10. All newly admitted nestlings are given 3 rounds of food at each feeding, 15 minutes apart. Check with staff for more information.



American Robin nestlings being fed with a feeding stick.

How are they fed?

1. Give each bird 3 to 4 portions of food far back in the mouth per feeding.
2. Make sure all birds get fed if there are several in one cage. Some nestlings are more aggressive than others and will try to get more food.
3. Keep the portions consistent with the bird's size.
4. Do not give water to a bird unless specifically instructed to do so by a staff member—nestlings receive their fluids from the Baby Bird formula.
5. When instructed to give water, use a 1cc syringe.
6. Closely monitor each bird's crop.
7. If a crop is full at the beginning of a feeding, skip that bird and continue normal feeding during the next round.
8. If the crop remains full after 2 feedings, notify a staff member as this may indicate crop stasis.

What about gaping?

- ◆ Most nestlings actively gape for food. If one does not, try to arouse its attention by imitating its parents behavior in the following ways:
 - ▶ *Lightly tap the side of the beak.*
 - ▶ *Drum on the “nest” (ice cream pail).*
 - ▶ *Whistle.*
 - ▶ *Wave your hand in horizontal circles above its head.*
- ◆ When the nestling gapes, place the food at the back of the mouth with a feeding stick.
- ◆ If a nestling does not gape within the first 3 feedings, notify a staff member as this is an indication of problems such as illness, dehydration, and/or disease.
- ◆ Healthy nestlings that do not gape need to be force-fed.



CAUTION: Nestling beaks and jaws can easily break or fracture!

Do not attempt force-feeding until a staff member has demonstrated the correct technique and has approved your ability to do it without help.

What about when I change shifts?

- ◆ Try to arrange a changeover period of at least one feeding.
- ◆ Do not take a break until someone takes over for you.
- ◆ Make a note of any birds that are hard to feed and any specific ways that you've been able to trigger gaping.
- ◆ Tell the volunteer who relieves you about self-feeders and problem feeders. Record observations on a note attached to the bucket or cage.
- ◆ Only hand over nestling feeding responsibilities to Blue Level (or higher) volunteers.
- ◆ Check with the volunteer you relieve about any possible self-feeding birds and birds that are hard to feed. Find out what has worked and not worked to induce feeding.

III. Altricial Health Concerns



Health concerns apply to both altricial nestlings and fledglings.

Health indicators

MALNUTRITION

- ▶ *Caused by improper feeding due to the poor quality of available food.*
- ▶ *Signs of malnutrition are soft bones, rubbery beaks, and poor feather condition such as fret marks on the feathers.*

MITES AND OTHER ECTOPARASITES

- ▶ *These are tiny insects which cause birds discomfort and pain.*
- ▶ *Inspect any towels used to hold the bird for tiny black mites.*
- ▶ *Notify staff of any abnormalities such as lesions or swelling, as these indicate infestation.*

GAPEWORM

- ▶ *Internal parasite that grows in birds' trachea and can interfere with breathing.*
- ▶ *Signs of gapeworm are coughing and an open beak when breathing.*
- ▶ *Affects robins, starlings, and crows.*

SPLAYED LEGS

- ▶ *The result of a bird not having proper foot support during the nestling stage.*
- ▶ *Because of this, birds are unable to perch or stand upright.*

SECTION 2: Altricial Fledglings



American Robin fledgling.

I. About Altricial Fledglings

What are altricial fledglings?

- ◆ They are young birds that are ready to leave the nest and follow their parents to find food.
- ◆ They can perch and hop.
- ◆ They are learning how to fly.

How do altricial nestlings change as they become fledglings?

- ◆ They develop a fully feathered body with a short tail.
- ◆ They keep themselves warm without their parents' help.
- ◆ They perch and stand on the edge of the nest.
- ◆ They gape for food but hold their heads down in an adult position.
- ◆ They track movement with their eyes.
- ◆ They develop an adult-shaped beak and smaller gape flanges.

What happens when fledglings are old enough to leave the nest?

- ◆ They are fed less often by their parents.
- ◆ They may remain on the ground for several days.
- ◆ They slowly learn to fly.
- ◆ They leave with their parents and shadow them in order to learn how to feed themselves.

What happens when fledglings are in care?

- ◆ The natural process of flight first and self-feeding second is reversed.
- ◆ They learn how to self-feed quickly.
- ◆ They learn how to fly after they have been moved to a flight aviary.

II. Altricial Fledgling Diets



An assortment of altricial fledgling diets.

What do they eat?

- ◆ Feed fledglings species-specific diets.
- ◆ Check the diet book for these diets.
- ◆ Leave dishes of vitamin water and adult foods in the cages throughout the day. Top with crushed egg yolk, mealworms, and fruit (such as berries).
- ◆ Ensure that food is crumbly—not dry or sticky. This will keep the birds from soiling their feathers.
- ◆ Place shallow, stable dishes of food in the front corners of the cage.

How are they fed?

- ◆ First feeding is at 8 AM.
- ◆ Use a timer to feed every 45 minutes from the start of each round.

- ◆ If no fresh diets are ready, give the birds a few mouthfuls from the overnight diet. Replace the overnight diets with fresh diets before the second round.
- ◆ Give each bird 3 to 4 mouthfuls each during each feeding.
- ◆ All birds in a cage must get fed:



Some birds are more aggressive and dominant than others and will try to get more food.

- ◆ Keep the size of the feeding portions consistent with the size of the bird.
 - ◆ Bait and tease them with a small amount of food on a feeding stick:
 - ▶ *They will not eat motionless food.*
1. Hold the diet dish inside the cage and stir the food with the stick, letting the bird watch you pick up the food.
 2. Move a small amount of food on the end of the stick from side-to-side and up and down, letting the bird track its movement.
 3. Give the bird a mouthful of food and repeat the process.



With the dish inside the cage, stir the food so the fledglings can see it moving.

How do I know if the fledglings are eating?

- ◆ Check overnight fledgling diets to see what they ate.
- ◆ When there are food particles in the water, it often means that the birds have been eating.
- ◆ Watch carefully to see if the bird is self-feeding.
- ◆ Check the crops of finches and sparrows. They can overeat.
- ◆ If the crop is full, give the birds water only on the next round and then continue with regular feeding.
- ◆ Give a fledgling vitamin water if it is not drinking water on its own.
- ◆ Use a 1cc syringe, putting drops of water along the side of its beak and making sure not to let any drops fall onto its feathers.
- ◆ Keep food dishes topped up with fruit, crumbled egg yolk, and mealworms.
- ◆ Diets must be fluffed up and look interesting — mealworms should be visibly moving.
- ◆ Watch droppings carefully. Note any changes in colour and consistency.
- ◆ Remove food at the last feeding in the evening and leave a new diet in the cage overnight.

What about when I change shifts?

- ◆ Tell the volunteer who relieves you about self-feeders and problem feeders.
- ◆ Attach a note to the cage of self-feeders and those beginning to self-feed.
- ◆ Hand over fledgling feeding duties only to Yellow Level (or higher) volunteers and take no break until another volunteer relieves you.

- ◆ Check with the volunteer you relieve about any self-feeders and problem feeders.

III. Altricial Fledgling Housing

Where are the younger fledglings kept?

- ◆ Younger fledglings are kept in heated pails in ISO #1.
- ◆ Once their bodies are fully feathered, they are moved into the Care Room.

Where and how do I set up the housing for older fledglings?

- ◆ Older fledglings are kept in laundry baskets, aquariums, kennels, and green cages.
- ◆ Cover each house with bed sheets and seal with clothes pins.
- ◆ Each housing needs to be completely changed in the morning and in the evening.



A green cage.

Which types of fledglings are housed in each unit?

- ◆ Robins, jays, thrushes, and starlings are kept in laundry baskets located in the Care Room.
- ◆ Keep finches and sparrows in aquariums.
- ◆ Keep crows in kennels.

How do I keep the fledglings clean?

- ◆ Spray fledglings with a fine mist of tap water several times a day to encourage them to preen.
- ◆ Clean the birds' feet if needed.
- ◆ Fledglings are provided with perches to allow their feet to properly develop and to prevent their tail feathers from being damaged by rubbing on the cage floor.

How do I keep the cages clean?

- ◆ Replace soiled perches with clean ones if needed.
- ◆ Remove the top layer of newspaper during every feeding.
- ◆ Make a note of the number and quality of each bird's droppings.

SECTION 3: Precocial Fledglings



Goslings (baby Geese).

I. About Precocial Fledglings



Examples of precocial birds: ducks, geese, pheasants, and killdeer.

What are precocial fledglings?

- ◆ They are covered in down.
- ◆ They are able to see, walk and/or swim.
- ◆ They self-feed shortly after hatching.
- ◆ They rely on their parents for protection and warmth.

II. *Precocial Fledgling Diets*



Make sure all dishes are small enough so the birds do not sit in them.



Wood ducks and a dish of duck salad.

How are they fed?

- ◆ Give young ducklings and goslings chick starter in vitamin water. Make sure this has a very fluid consistency.
- ◆ Give older ducklings dry chick starter and a separate dish of shredded duck salad.
- ◆ Provide a water fountain as a water source and keep it topped up.

What about when they grow adult feathers?

- ◆ Give ducklings and goslings less chick starter.
- ◆ Switch their diet gradually to duck pellets.
- ◆ Continue to provide them with duck salad.

What about Gulls (semi-Precocials)?



Young Gulls and a dish full of fish pieces.

- ◆ Gulls are hand-fed small pieces of fish while very young. They quickly begin to eat on their own from a dish.
- ◆ Make the food as interesting as possible and note if the bird has been self-feeding.

III. Precocial Fledgling Housing

How are they housed?

- ◆ Keep ducklings and goslings in a lamp-heated brooder, which is specially made with a wire bottom to keep the birds clean.
- ◆ Keep housing warm.
- ◆ Provide a dry area in the brooder where the birds can rest.
- ◆ Provide a shallow pool in the brooder during the day.



A typical duck brooder. Stuffed toys are provided for warmth and comfort.

IV. Precocial Fledgling Health Concerns

Health indicators

ANGEL WING

- ▶ *A condition which occurs during a wing's growth causing the wing to stick out from the body at a 90 degree angle.*
- ▶ *This is common in waterfowl, especially Canada Goslings.*

MALNUTRITION

- ▶ *Lack of proper nutrition stunts the growth.*
- ▶ *It also causes poor feather condition, such as fret marks on feathers.*

IMPRINTING ON PEOPLE

- ▶ *This is not a health concern, but it is difficult to reintroduce birds to the wild if they have become used to people.*

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