

# REPTILE EGG COLLECTION AND INCUBATION TECHNIQUES

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With few exceptions (some geckos, pythons, etc.) you should collect reptile eggs as soon as possible after being laid so that they may be artificially incubated.

Try to keep them in the same orientation as when laid. You may mark the top of each egg with a soft pencil if you wish, to help you keep track of the top of the egg.

Select an appropriate container to hold the eggs during incubation. Plastic sweater or shoe boxes, food storage containers and deli cups all work well for this purpose. Containers with clear, see-through sides and top are best. Choose an incubation medium. Both vermiculite and perlite are good choices.

Using a postage or gram scale, first weigh the container that will hold the eggs and record that weight.

Next, add enough incubation medium to fill the container  $\frac{1}{3}$  to  $\frac{1}{2}$  full and record the actual weight of the medium added.

Add an equal amount by weight (about 1:8 by volume) of purified or spring water poured evenly over the medium. Avoid the use of chlorinated tap water.

Mix the moistened medium thoroughly with a clean utensil and then smooth it flat.

Make evenly spaced indentations in the surface into which to place the eggs.

Either discard or incubate separately any damaged or infertile appearing eggs. Infertile eggs often appear

discolored and are soft and "flabby" feeling. Fertile eggs are normally whitish and full in appearance.

Place the eggs into the indentations in the medium that you have made so that the lower half of the egg is buried and the upper half is exposed to the air space within the egg container.

Pat the surface of the medium smooth and into good contact with each egg.

Put the container cover in place and mark with species name, clutch ID#, date laid, # of eggs laid and any other information that you feel is necessary. I do not use vented egg containers but prefer using ones which are relatively air-tight.

Place the prepared container of eggs into an incubator that has already been preset, pre-tested and at a temperature appropriate for that species.

The sex of some reptile species is determined by incubation temperature (see list with incubation temperatures below).

The proper incubation temperatures vary by species (also see below).

Open the egg container every 72 hours for 10 to 30 seconds to allow some oxygen exchange and to examine the progress and condition of the eggs.

Fertile eggs normally increase in both length and especially in girth as they develop, becoming quite turgid and full in appearance.

Small spots of "egg fungus", which can sometimes develop even on fertile eggs, can often be arrested by applying athlete's foot powder with a cotton swab to the affected area. Look for a product with Miconazole nitrate 2% as the active ingredient such as "Desenex" and "Micatin".

Infertile eggs and eggs in which the developing embryo has failed to survive normally begin to collapse and mold within a few weeks and should be removed from containers with other healthy appearing eggs.

Several days before the eggs are about to hatch, the formerly turgid egg will often, but not always, "dimple" in somewhat, apparently due to moisture loss. Vent the container at this time by replacing the solid top with a vented one or by setting the original top on slightly askew. Tape or Velcro the lid in place to prevent emerging hatchlings from escaping from the egg container.

After an incubation duration determined by both species and incubator temperature, the neonates will begin to slit their eggshells with their tiny "egg tooth".

Hatchlings often sit with only their head exposed for 24-48 hours before exiting the eggshell. Try not to disturb them at this time as they are absorbing their remaining yoke supply and to do so may cause them injury.

Once all of the hatchlings have exited their eggs place them into a container appropriate for that species and at a temperature near their previous incubation temperature. Humidity levels are normally kept higher for hatchlings than for adults of the same species.

Over the next week or two gradually increase the daytime and lower the nighttime temperatures until the normal daily gradients for that species are reached.

Hatchlings normally begin to feed within 7-14 days on appropriate food items.

**Some incubation temperatures listed by various authors for commonly bred species:**

71F (22C) produces mostly male Box Turtles; 79F (26C) generally produces an even sex ratio; 88F (31C) produces mostly female Box Turtles.

74F (23C) at night to 88F (31C) daytime – Veiled Chameleons

79F (26C) produces mostly female Leopard Geckos; 86F (30C) produces an even sex ratio; 90F (32C) produces mostly male Leopard Geckos.

80F to 82F (27C to 28C) – Red-eared Slider Turtles

80F to 88F (27C to 31C) – Pancake Tortoises

82F (28C) – Tokay geckos

84F (29C) – Bearded Dragons

84F to 86F (29C to 30C) – African Spurred Tortoises, Russian Tortoises

85F to 90F (29.5C to 32C) – Uromastyx Lizards

85F (29.5C) – Corn Snakes, Marginated Tortoises

86F (30C) – Iguanas, Tegus, Monitors, Anoles, Water Dragons, Basilisks

90F (32C) – Ball Pythons

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