

Excerpted from

Identification guide of Invasive Alien Species of Union concern

Support for customs and/or surveillance on the identification of IAS of Union concern

Project task 09.0201/2022/876950/SER/ENV.D.2
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Lampropeltis getula sensu lato

Common kingsnake, Florida kingsnake, Eastern kingsnake

Synonyms

Coluber getulus Linn.,
Ophibolus getulus Cope.,
Lampropeltis getulus Dess. & Pour.,
L. getula californiae Blai.,
L. getula holbrooki Stej.,
L. getula nigra Yarr.,
L. getula splendida Bair. & Gira.,

Species ID

Kingdom: Metazoa
Phylum: Chordata
Class: Reptilia
Order: Squamata
Family: Colubridae
Genus: *Lampropeltis*
Species: *Lampropeltis getula*



General description:

Medium to large terrestrial snake, that can be black, brown, pink, orange and red, white, and yellow. There are multiple patterns such as speckling of some of the various colours (e.g. yellow and brown), one or two stripes going down the length of the back, banding going down the body, or banding and striping going down the body, or unicolour without a pattern. The banding can be striking especially in the wild, but otherwise there are no other notable physical characters. There are also aberrant patterns and colour combinations in the wild (not only aberrant morphs created by breeders). These snakes are characterised by shiny smooth scales, a rounded downturned snout, constricts prey by coiling around it, and an ability to eat other snakes. These snakes also hiss, vibrate their tail, and musk / defecate when threatened. While many individuals retain the same pattern their whole lives, others may show some shifts in their patterning during growth. There is a slight amount of sexual dimorphism present with females usually having a shorter and thinner tail than males. Eggs and nests are not usually found, they consist of white oval leathery eggs, with a variable clutch size rarely past 25 eggs. Significant variation is present in the various subspecies and pet trade morphs.

Size: Snout Vent Length (SVL): 50-160 cm. Tail Length: 20-40 cm. Weight: 0.5-2 kg.

Disclaimer: In the light of the unclear and unstable taxonomy, this ID guide refers to the *L. getula* Linnaeus 1766 *sensu lato*, which considered eight subspecies. *Lampropeltis* species can usually be identified based on their morphology with some individuals exceeding 200 cm in length. Identification relies mostly on pattern, which can be highly variable in these snakes. Exact identification should be made by an expert, as identification for the various subspecies and morphs can be difficult.

Distinctive characteristics

The body is rounded and streamlined with smooth scales. Scales can have multiple colours on them.

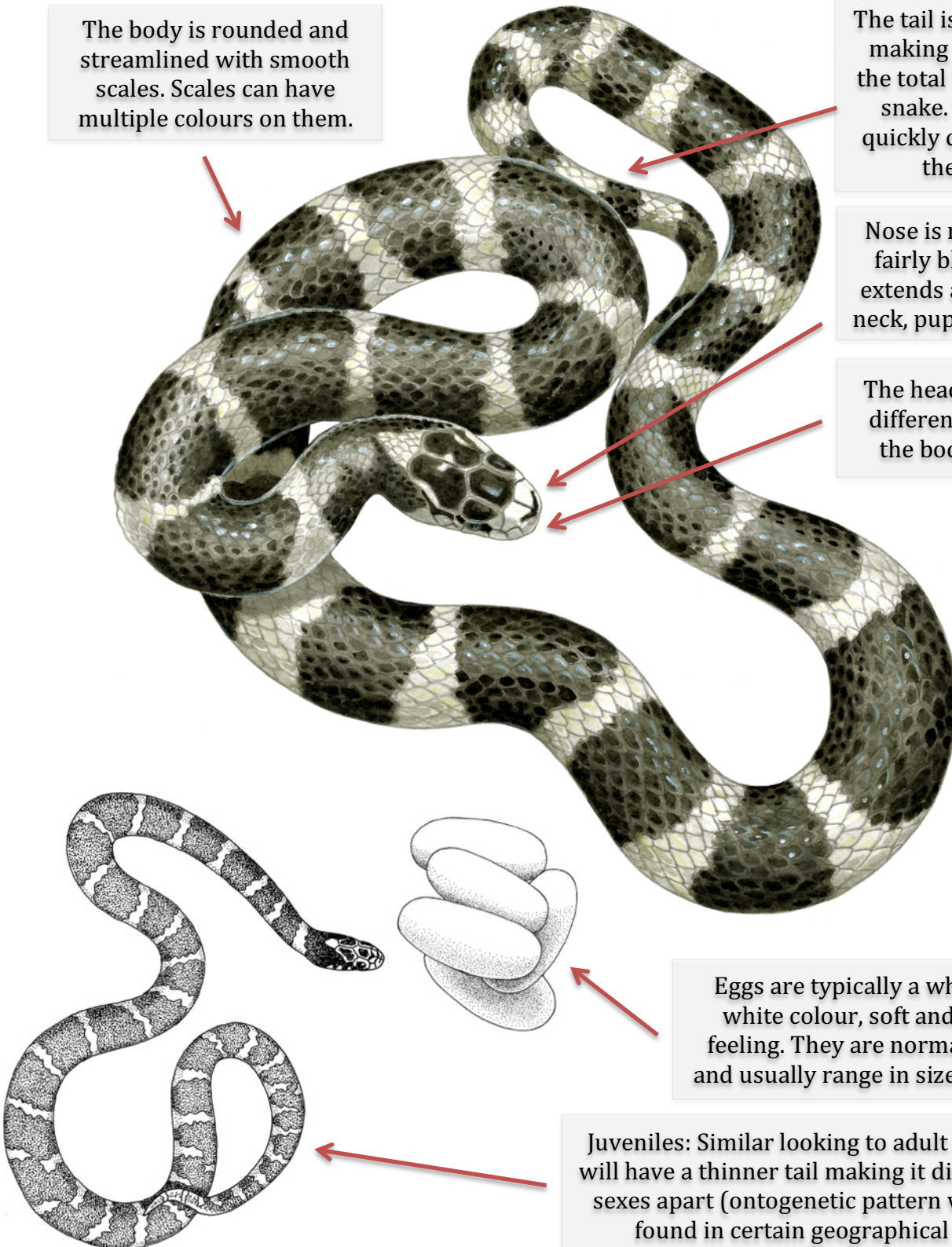
The tail is shorter, not making up much of the total length of the snake. Tapers off quickly compared to the body.

Nose is rounded and fairly blunt, mouth extends almost to the neck, pupils are round.

The head is not very differentiated from the body or neck.

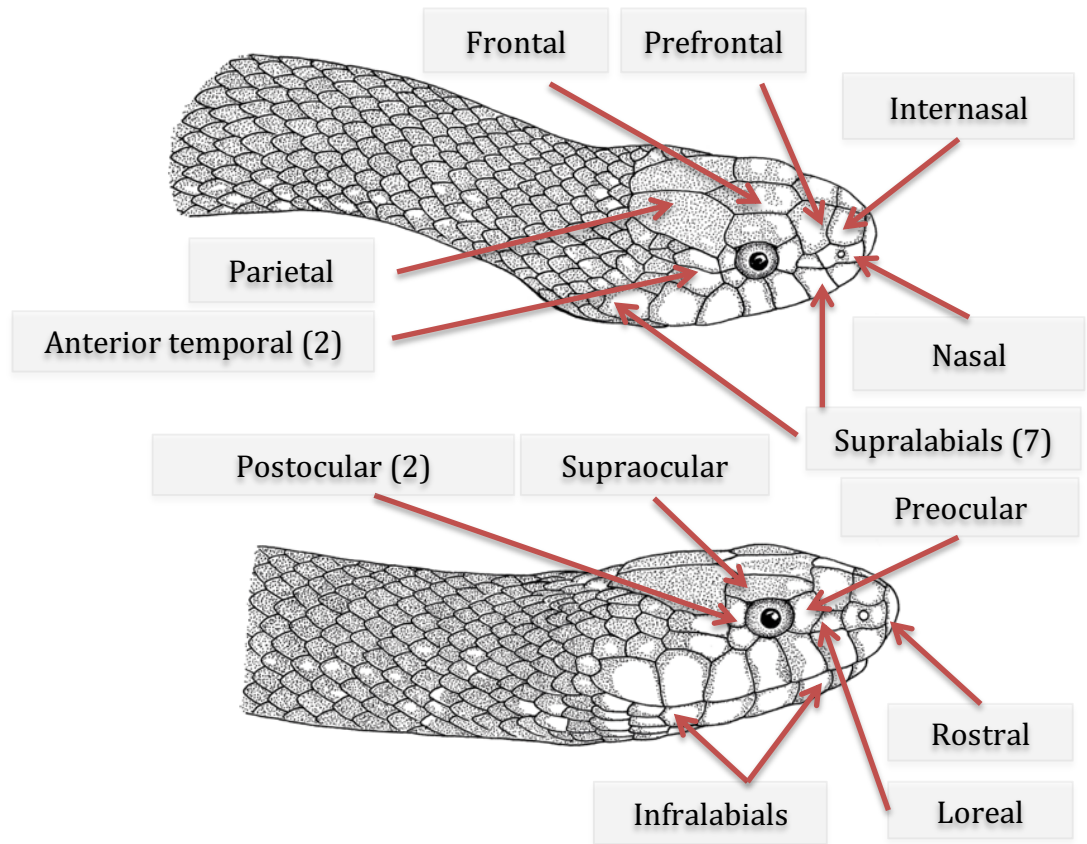
Eggs are typically a white or off-white colour, soft and leathery feeling. They are normally buried and usually range in sizes of 2-6 cm.

Juveniles: Similar looking to adult snakes, but will have a thinner tail making it difficult to tell sexes apart (ontogenetic pattern variation is found in certain geographical areas).

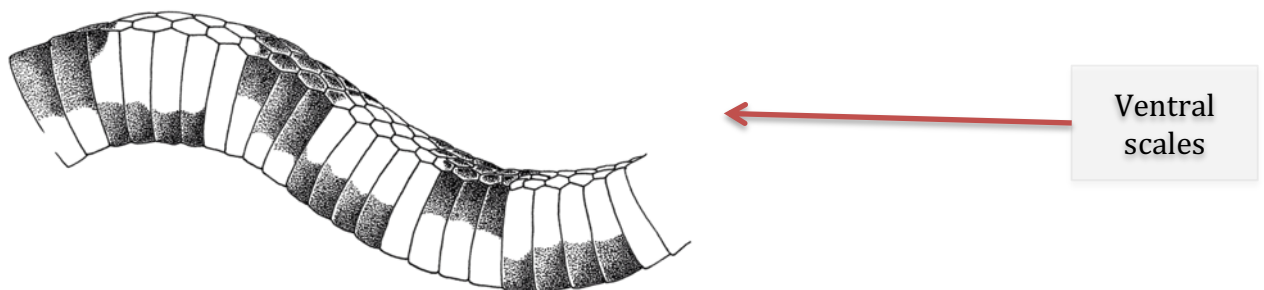


Scales

The head scales on many colubrids are highly conserved, with most kingsnakes having similar head scale counts. There can be variation in midbody scale rows, ventral scales, and subcaudal count between both individuals and species / subspecies.

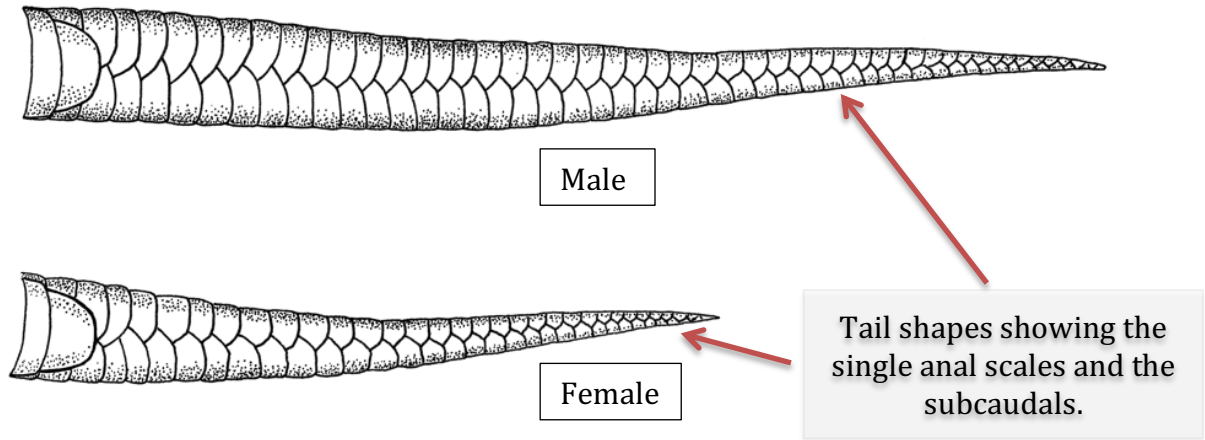


No suboculars are present in kingsnakes, because the eye is in direct contact with the supralabials, but other species of snakes may have a variable number of suboculars (which are scales occurring between the eye and the supralabials).



Sexual dimorphism

Females will usually have a shorter tail, which is thinner around the base. Males can have a longer tail which is a bit thicker where the hemipenes are stored.



Subspecies

List of subspecies considered in this identification guide (illustrations and other details are available on the next pages):

California kingsnake *L. getula californiae* - Synonym: *L. californiae*

Eastern Black kingsnake *L. getula nigra* - Synonym: *L. nigra*

Speckled kingsnake *L. getula holbrooki* - Synonym: *L. holbrooki*

Eastern kingsnake *L. getula getula* - Synonym: *L. getula*

Desert kingsnake *L. getula splendida* - Synonym: *L. splendida*

Florida kingsnake *L. getula floridana* - Synonym: *L. floridana*

Black Desert kingsnake *L. getula nigrita* - Synonym: *L. nigrita*

Outer Banks kingsnake *L. getula sticticeps* - Synonym: *L. getula*

Popular morphs in the pet trade

List of main morphs considered in this identification guide (illustrations and other details are available on the next pages):

L. getula californiae morphs

- Banana
- High White
- Albino
- Twin Dotted
- Chocolate

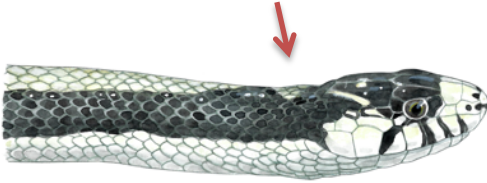
L. getula floridana morphs

- Albino
- Anery / Axanthic
- Hypomelanistic / Peanut Butter
- Mosaic
- White Sided

California kingsnake *L. getula californiae*

There are two wild type patterns:

The striped pattern consists of a mainly white / yellow pale body with a black / brown stripe running down the dorsal part.



The second is a banded pattern which alternates between black / brown and white / yellow. Currently, both pattern types are invasive in the Canary Islands (albino individuals are also present, but are discussed in the morph section). See morph section for a more detailed list of available morphs.

Popular subspecies in the pet trade, with well over twenty different pattern and colour morphs available.

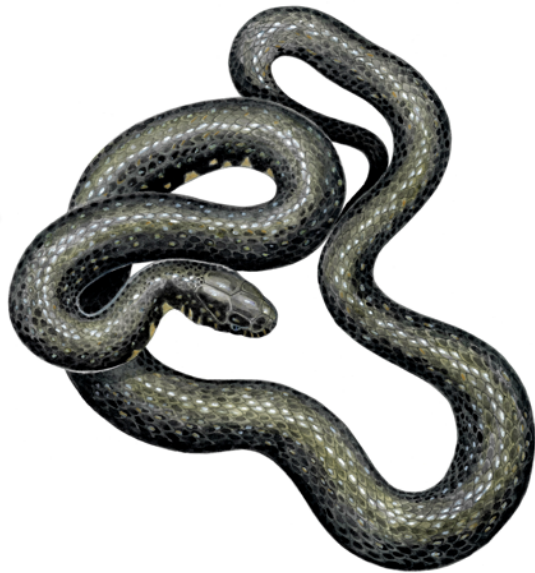
Eastern Black kingsnake *L. getula nigra*

Two main pattern types:

The first is mostly black with slight yellowish white speckling potentially present.



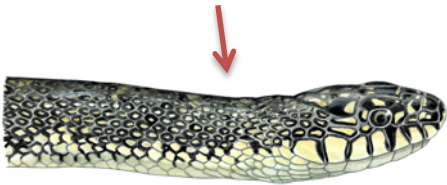
The second has slight yellowish white speckling with banding present as well.



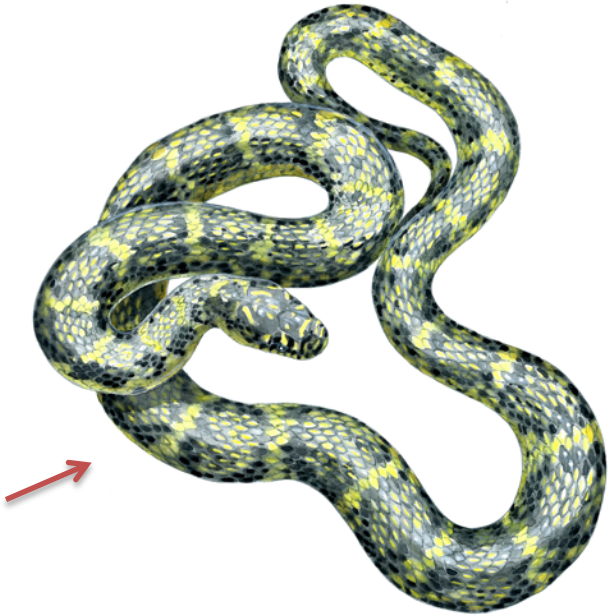
Speckled kingsnake *L. getula holbrooki*

Two main pattern types:

The first is heavily speckled with black and yellow colours intermixed.



The second can also have banding down the dorsal side.



Eastern kingsnake *L. getula getula*

Two main pattern types:

The first is mainly black with yellow banding. Sometimes yellow side speckling is present.



The second is heavily speckled with brown and yellow colours intermixed similar to *L. g. floridana* due to the presence of large hybrid zones.



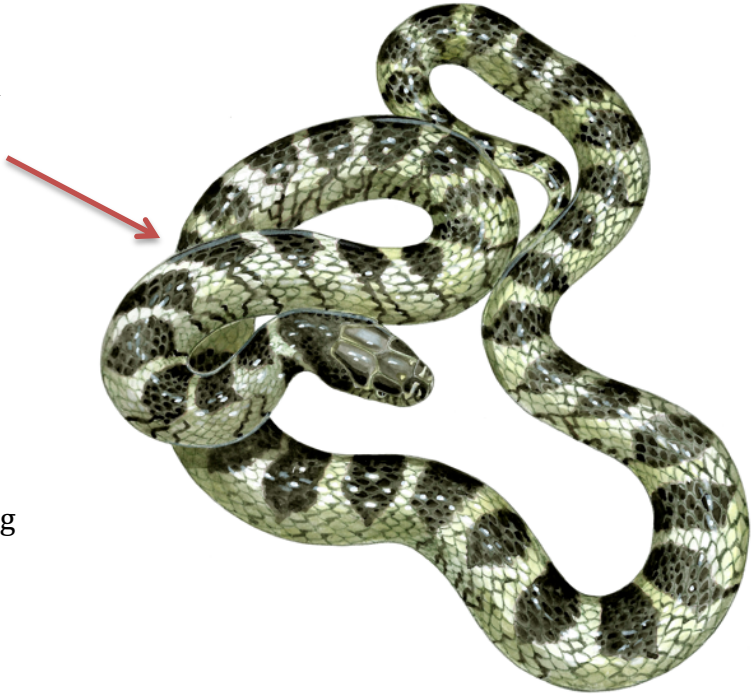
Desert kingsnake *L. getula splendida*

Two main pattern types:

The first is black with slight yellowish white speckling and banding present has the appearance of black saddles.



The second is darker with less yellowish white speckling and banding present has the appearance of black saddles.



Florida kingsnake *L. getula floridana*

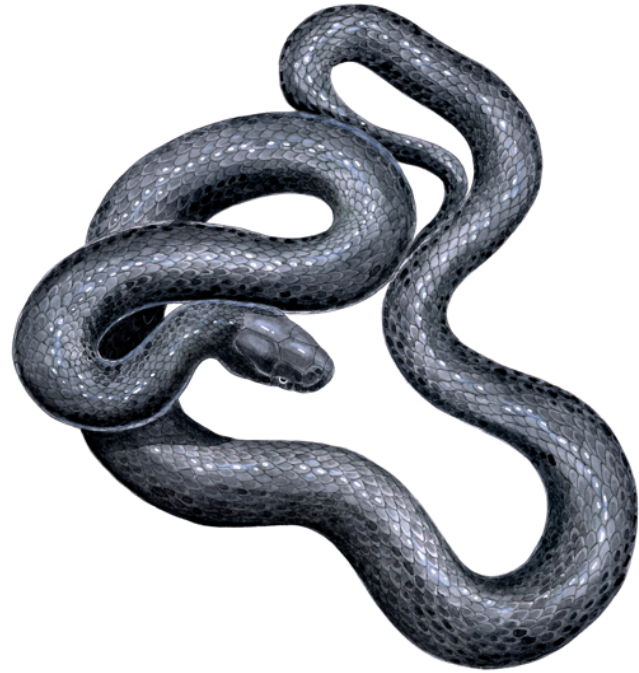
The wild type is heavily speckled with brown, yellow, and sometimes red colours intermixed, banding is also usually present. This species can have the same or similar appearance as *L. g. getula* due to large areas of hybrid zones. See morph section for a more detailed list.

Popular subspecies in the pet trade, with over five morphs.



Black Desert kingsnake *L. getula nigrita*

Body is usually completely black.



Outer Banks kingsnake *L. getula sticticeps*

This subspecies has been considered invalid by many, and appears to be a localised morph of *L. g. getula*. The body is usually black to brownish with yellow banding and side speckling present.



Kingsnake counts and measurements

Data from Zweifel and Norris 1955, Hubbs 2008, Pyron and Burbrink 2009

	Adult size mean cm	Ventral scale count	Subcaudal scale count - male	Subcaudal scale count - female	Dorsal mid body scale row
<i>L. getula californiae</i> California kingsnake	76-122	213-255	46-63	44-57	23-25
<i>L. getula nigra</i> Eastern Black kingsnake	90-122	197-222	45-59	37-51	19-25
<i>L. getula holbrooki</i> Speckled kingsnake	90-122	197-222	46-59	37-51	19-25
<i>L. getula getula</i> Eastern kingsnake	90-122	200-223	45-58	37-55	19-25
<i>L. getula splendida</i> Desert kingsnake	90-114	199-237	45-62	40-52	23-25
<i>L. getula floridana</i> * Florida kingsnake	90-122	200-223	45-58	37-55	19-25
<i>L. getula nigrita</i> Black Desert kingsnake	61-91	213-225	47-56	47-56	23-25
<i>L. getula sticticeps</i> * Outer Banks kingsnake	90-122	200-223	45-58	37-55	19-25

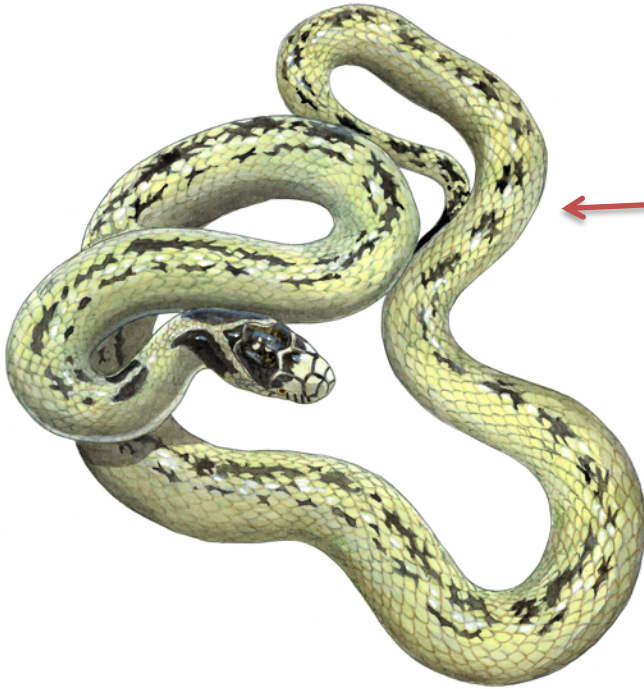
* The counts and measurements for *Lampropeltis getula sticticeps* and *L. getula floridana* are using generalised data based on *L. getula getula* due to the high amounts of hybridisation and overlap between these subspecies.

Popular morphs in the pet trade

L. getula californiae morphs

Banana

While there is a range of patterns this morph can have, it is characterised by the presence of yellow and brown.



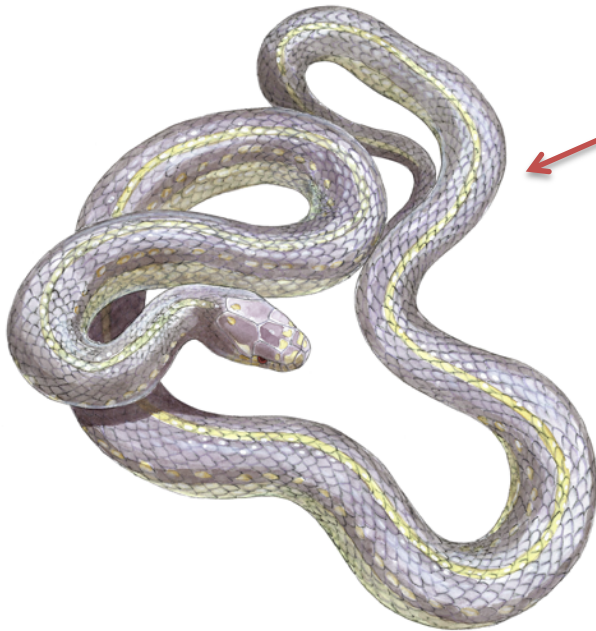
High White

This morph is characterised by there being large amount of white present, with black being the secondary colour.



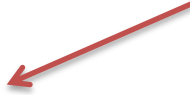
Disclaimer: While all the *Lampropeltis* subspecies listed can be found within the pet trade, *L. getula californiae* and individuals with either pure or mixed *L. getula floridana* / *L. getula getula* genetics are the popular and visually different morphs. Exact identification should be made by an expert, as identification for the various subspecies and morphs can be difficult.

L. getula californiae morphs



Albino

This morph is albino, it can come in different patterns but is characterised by the light pink / lavender colours present and usually red eyes.



Twin Dotted

This morph generally has two rows of spotting going down the back.



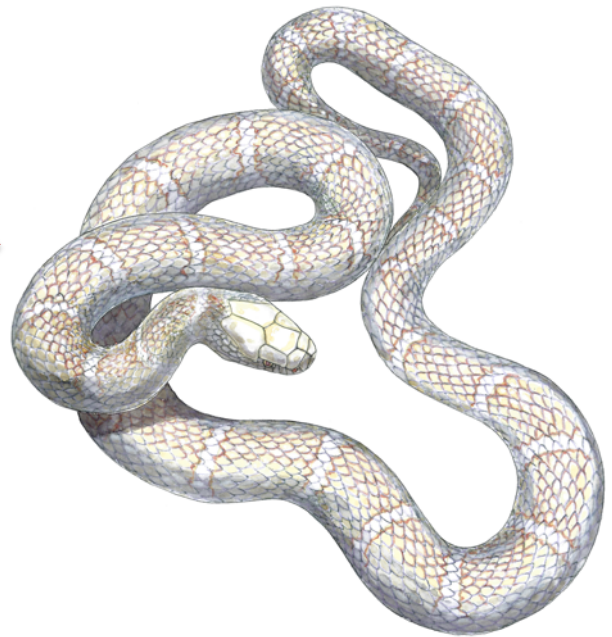
Chocolate

This morph is mostly unicolour brown, although some slight patterning can be present.

L. getula floridana morphs

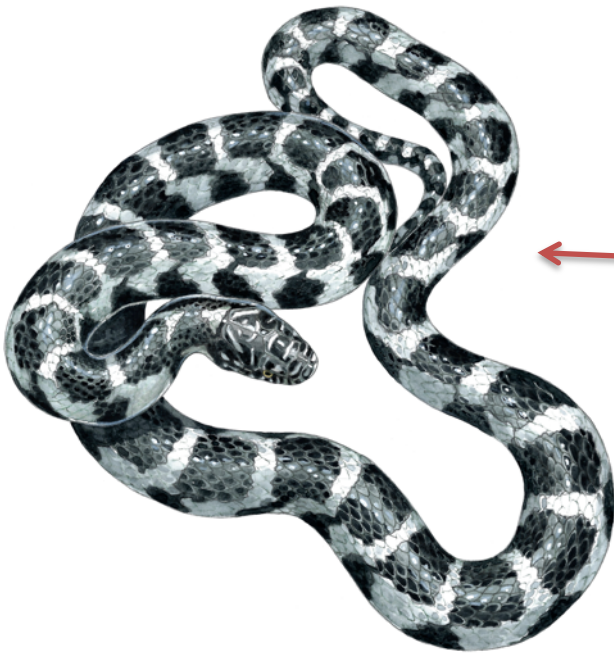
Albino

This morph is albino, it can come in different patterns but is characterised by the white, sometimes red, and yellow colours present and usually red eyes.



Anery / Axanthic

These morphs are characterised by mostly being black and white in colour.



Hypomelanistic / Peanut Butter

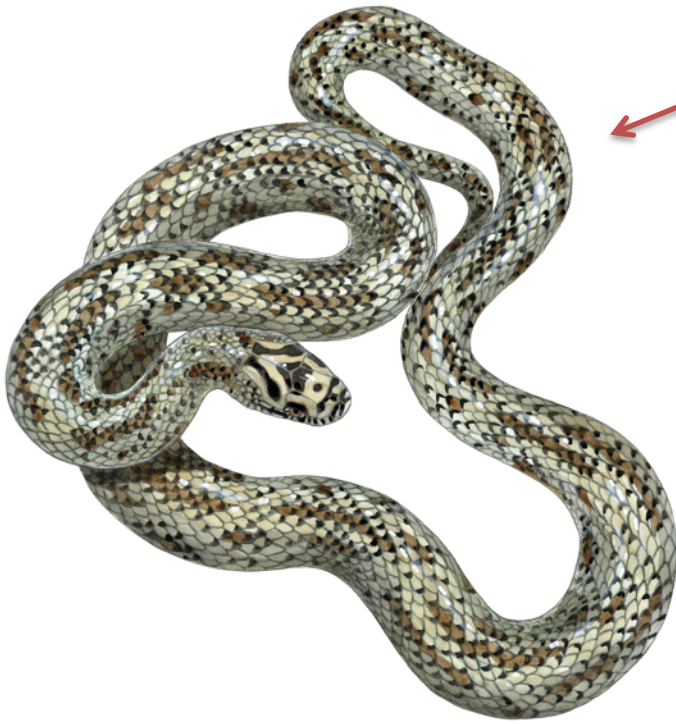
These morphs are characterised by minimal amounts of black, while other colours such as white, red, yellow, or brown are enhanced.



L. getula floridana morphs

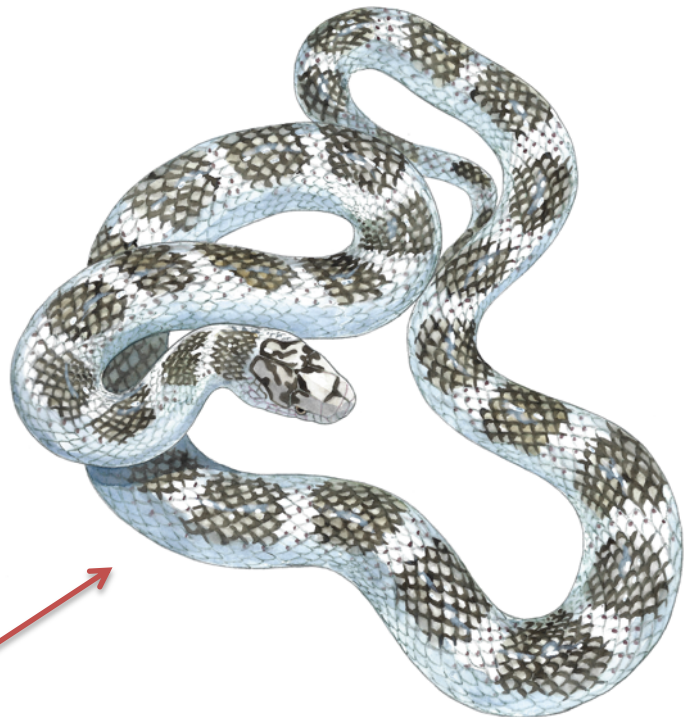
Mosaic

This morph is similar to the wild type but has an irregular pattern.



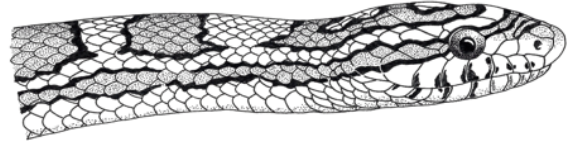
White Sided

This morph has patterning / colour on top, but has white flanks.



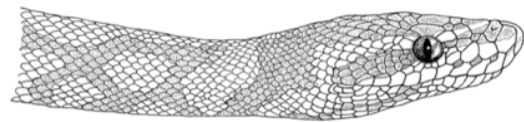
Popular snakes in the pet trade

Corn snake (*Pantherophis guttatus*)



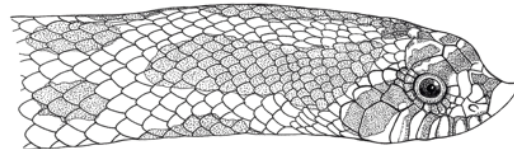
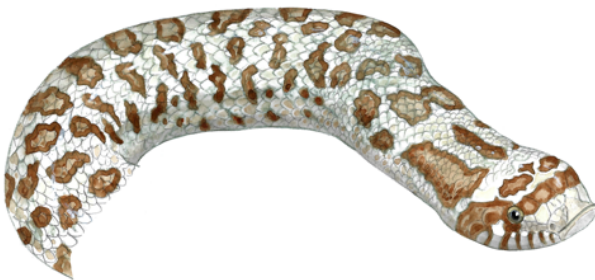
This species has been shown to hybridise with *Lampropeltis*. Pattern on this snake can be variable due to many morphs, generally it has 8 supralabials, can have dorsal scales that are weakly keeled, and a more elongated head.

Ball python (*Python regius*)



Head is differentiated from the neck, visible pits along the upper labials, generally a large bodied snake. Has a vertical pupil. There are many different morphs available in the pet trade.

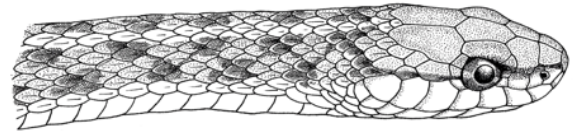
Hognose snake (*Heterodon* spp.)



These snakes are small, they have upturned snouts with a prominent rostral scale, generally have small head with a short snout, thick pointed tail. When handled these snakes have a tendency to play dead.

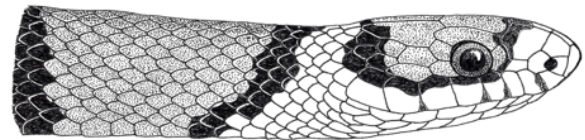
Disclaimer: In this guide a selection of the many species of snakes found within the pet trade is provided. Although they are meant to be some of the most representative, this must not be considered an exhaustive list of all species that may be found in trade. Exact identification should be made by an expert, as identification for the various species and morphs can be difficult.

Garter snake (*Thamnophis* spp.)



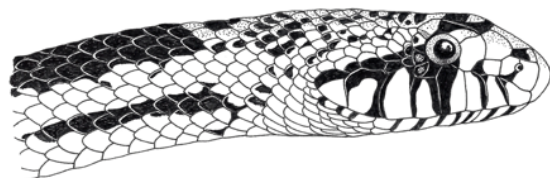
This genus generally has keeled dorsal scales, is commonly associated with water, and often has 3 postoculars. It has a sharper head shape, and can have a ridge by the eye present.

Milk snake (*Lampropeltis* spp.)



Snakes in the same genus as kingsnakes, they usually have apparent red, yellow or white, and black banding. In the pet trade there can be multiple morphs with varying colour patterns. Some species may hybridise with the *Lampropeltis getula* complex.

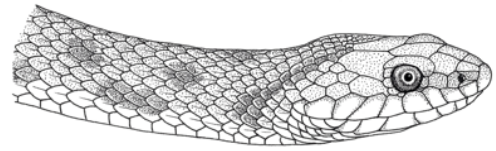
Gopher snake (*Pituophis catenifer*)



The rostral scale is more prominent and apparent, can have three postoculars, eye banding usually present in wild-type. The pattern and colour can vary a lot within the pet trade.

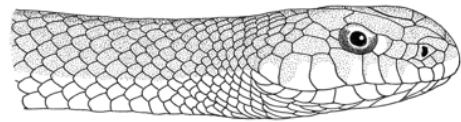
Similar common snakes in Europe

Dice snake (*Natrix tessellata*)



There is a slight ridge above and in front of the eye. Can be olive green with slight banding but variations in colour and pattern exist. Keeled scales across dorsal body. Very much associated with water.

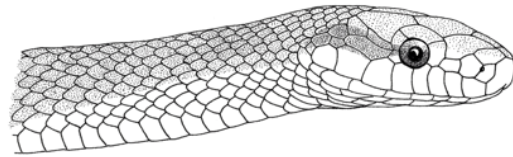
Montpellier snake (*Malpolon spp.*)



Prominent brow ridge which stretches from the eye up to the nose. Can have a saddle, with flank patterning. Cases of melanism have been reported.

Disclaimer: In this guide a selection of the many species of snakes found in the wild in Europe is provided. Although they are meant to be some of the most representative, this must not be considered an exhaustive list of all species that may be found in the wild in Europe. Exact identification should be made by an expert, as identification for the various species and morphs can be difficult.

Aesculapian snake (*Zamenis lineatus* & *Z. longissimus*)



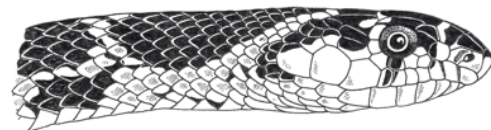
For *Z. lineatus*, the eye is distinctive and can be orange or red, dark brown stripes may run down the flanks of adult individuals. For *Z. longissimus* white side speckling can be common in adults. For both *Z. lineatus* and *Z. longissimus* there are 8-9 supralabials, a rectangular elongated head, weakly keeled scale or smooth scales, with dark markings and patterning present on the head and body, mostly during the juvenile stages. Some individuals have been found to be melanistic.

Western whip snake (*Hierophis viridiflavus*)



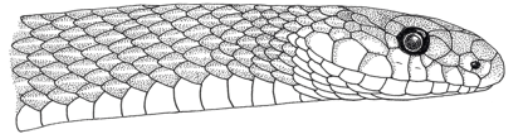
There are 8 supralabials present, and a slight ridge can be present above the eye, 1 subocular. The species has two main phenotypes: dorsal black with whitish or yellow mottling pattern or dorsal black pattern.

Horsehoe whip snake (*Hemorrhois hippocrepis*)



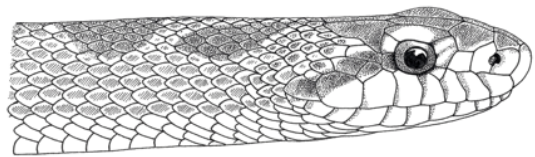
Multiple suboculars present, 9 supralabials present.

Eurasian whip snakes (*Dolichophis* spp.)



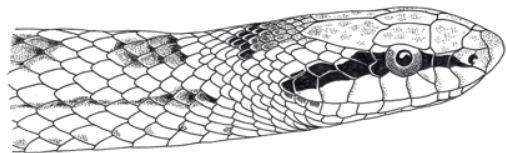
There are usually 8 supralabials, with 2 preoculars, and 1 subocular.

Eastern four lined snake (*Elaphe sauromates*)



There is usually 1 subocular, with 8 supralabials.

Smooth snake (*Coronella austriaca*)



Eye stripe is present, which can continue all the way across both eyes, similar head scales, but a smaller snake with brown patterning.

Common names

BG	Обикновена кралска змия
HR	Obična kraljevska zmija
CS	korálovka pruhovaná
DA	Østlig kongesnog
NL	Koningsslang
EN	Common kingsnake
ET	kuningmadu
FI	kuningaskäärme
FR	Serpent roi
DE	Ketten-Konigsnatter
EL	Βασιλικό φίδι
HU	Királysikló

GA	rí-nathair coiteann
IT	Serpente reale
LV	-
LT	rytinis karališkasis žaltys
MT	sultan is-sriep
PL	Lancetogłów królewski
PT	cobra-rei
RO	Șarpele regal
SK	hadiarka retiazková
SL	kalifornijska mlečna kača
ES	Burrila
SV	kungssnok

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