

The Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), has the purpose of regulating international trade in plant and animal species listed in its Appendices, and ensuring that it is sustainable.

► **Appendix I** (5 species from the genus *Abronia*) includes endangered species. In general terms, the exchange with commercial purposes is restricted.

► **Appendix II** (24 species from the genus *Abronia*) includes species that are not necessarily endangered but could be if their international trade is not regulated. It also includes some species that are not threatened by international trade, but can be confused with those that are, and therefore their trade must also be regulated. In general terms, international trade with commercial purposes is allowed.

IN MEXICO, CONTACT:

► **Law enforcement:** PROFEPA (01-800-77-033-72).

► **Harvest and exportation permits:** General Direction of Wildlife, SEMARNAT (+52-55-5624-3309)

► **Scientific and technical advice:** Scientific Authority of CITES, CONABIO (+ 52-55-5004-4937).

WORLDWIDE:

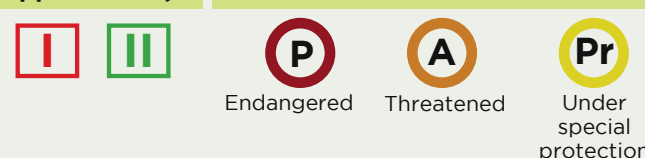
► Reach out your CITES Authorities at www.cites.org

REFERENCE GUIDE

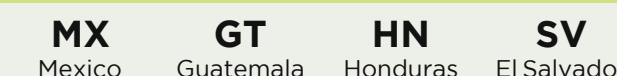
Categories of the **International Union for Conservation of Nature (IUCN) Red List.**



CITES Appendices: I, II Risk categories in Mexico **NOM-059-SEMARNAT-2010**



Species distribution:



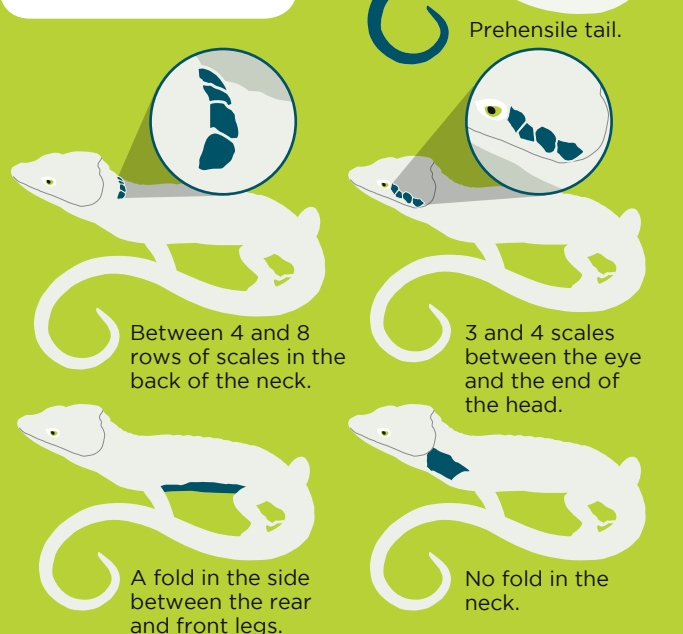
How to quote: Sánchez-Herrera, O., Solano-Zavaleta, I., Rivera-Téllez, E. 2017. Identification guide for dragons (Arboreal alligator lizards, *Abronia* spp.) regulated by CITES. CONABIO, Mexico

IDENTIFICATION GUIDE FOR DRAGONS

(Arboreal alligator lizards, *Abronia* spp.)
REGULATED BY CITES



ATTENTION
LIST OF CHARACTERISTICS OF THE DRAGONS



IF THE SPECIMEN DOES NOT PRESENT THESE CHARACTERISTICS, IT IS NOT A DRAGON

HOW TO USE THIS GUIDE?

The guide allows to identify adult specimens of the 29 species described at the moment (Uetz and Hallermann, reptile-database.org, 2016). It is recommended to use a camera (cellphone or other) with at least 3 megapixels and/or a magnifying glass.

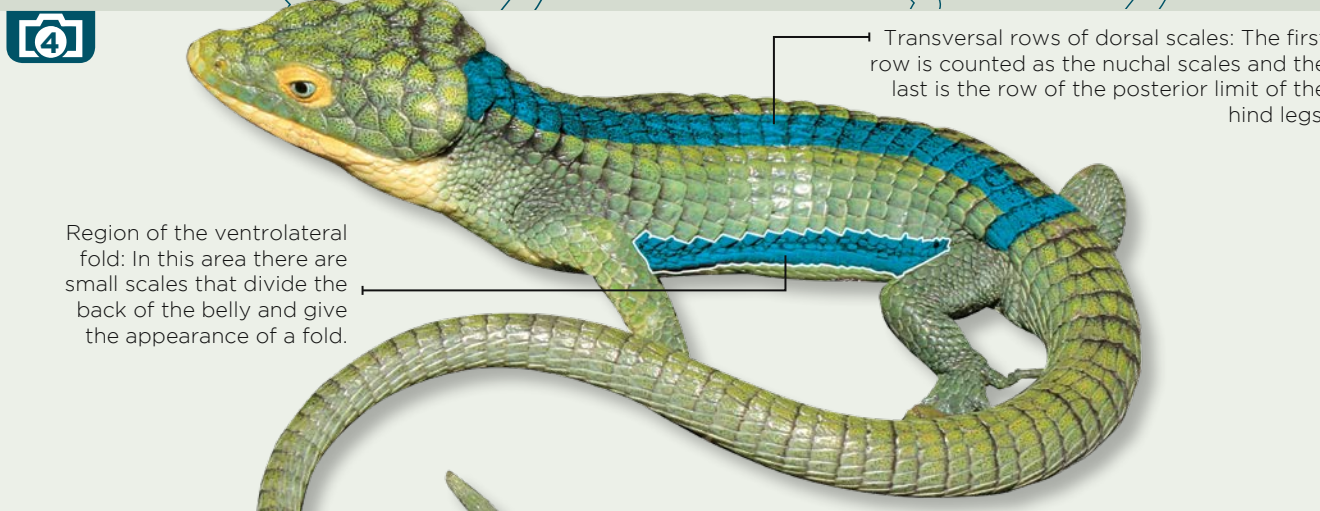
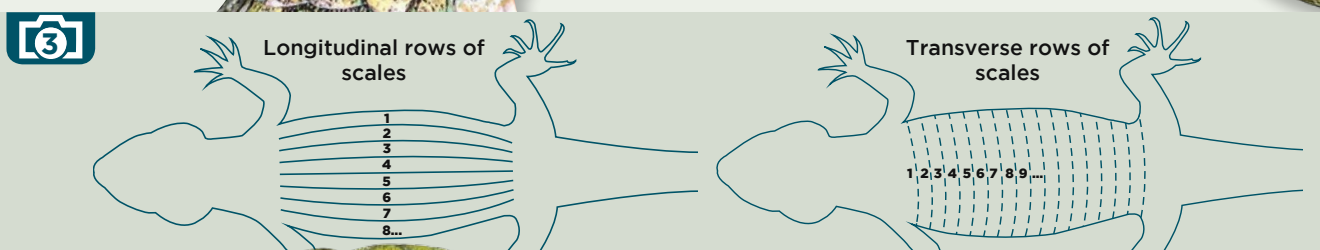
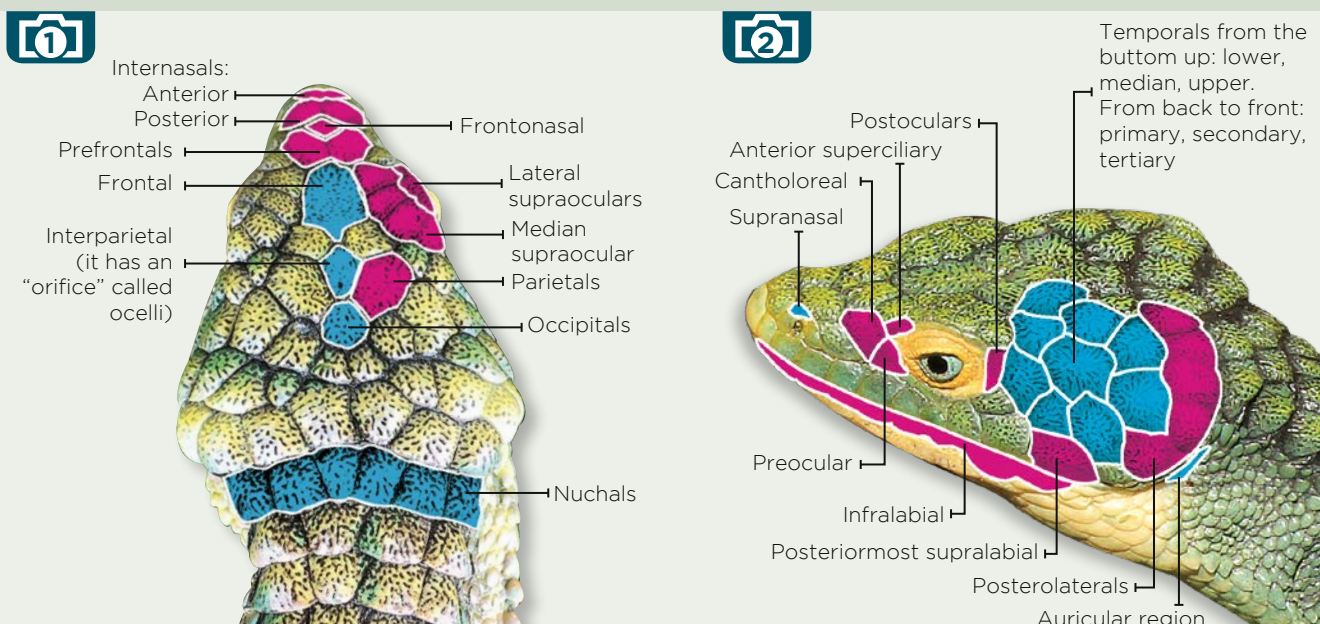
It is necessary to **take 4 photos of the specimen** to be able to locate the scales that are illustrated in the 4 images below.

1. To begin identification: Pay attention to the **scales marked in blue** and to the Graphic Key to locate

the color of the *Abronia* Group to which the specimen belongs.

2. For identification at the species level: Identify the *Abronia* Group to which the specimen belongs. Find on the specimen, the **scales marked with pink** and review the description sheets to identify the species, paying special attention to the characteristics highlighted in **bold**.

3. In case of any doubt, contact experts (goo.gl/rBBrHu).



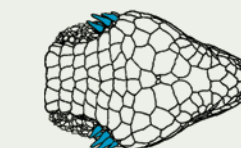
GRAPHIC KEY OF THE GENUS ABRONIA

► Less than 38 transverse rows of dorsal scales
► Lower primary temporal scale slightly enlarged; allows others contact with the postoculars

► With 38 transverse rows of dorsal scales
► Lower primary temporal scale very enlarged; only this scale is in contact with the postoculars

A. bogerti
A. chiszari
A. ramirezi

► With "horns", supraauricular scales elongated and thorny



► Color of the area around the eye with respect to the rest of the head

► Similar



A. fimbriata
A. gaiophantasma
A. leurolepis
A. lythrochila

► Slightly lighter



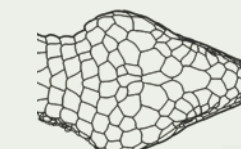
A. aurita
A. matudai
A. ochoterenai
A. smithi

► Much lighter

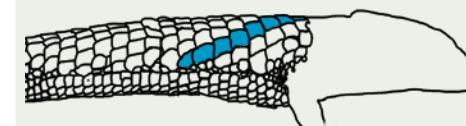


A. anzuetoii
A. campbelli
A. meledona
A. vasconcelosii

► Without "horns", supraauricular scales are not elongated nor thorny



► Dorsolateral scales diagonally with respect to the ventrolateral fold



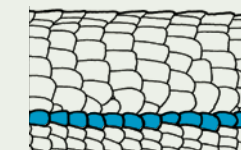
► Occipital scales in odd number (1 or 3)

► Two Occipitals

A. cuetzpali
A. deppii
A. martindelcampoi
A. mixteca
A. oaxacae

A. mitchelli

► Ventral scales adjacent to the ventrolateral fold similar in size to the rest of the ventral scales



► Supranasal scales without contact with each other



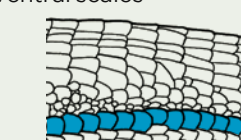
A. graminea
A. taeniata
A. fuscolabialis

► Supranasal scales expanded and in contact with each other



A. ornelasi
A. reidi

► Ventral scales adjacent to the ventrolateral fold clearly larger than the rest of the ventral scales



A. frosti
A. montecristoi
A. salvadorensis

I Species that require permits for Appendix I

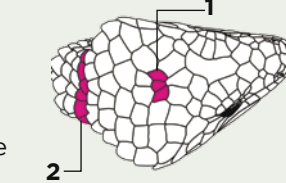
II Species that require permits for Appendix II

Abronia cuetzpali MX **II**

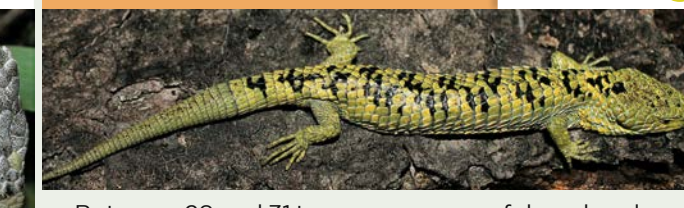


► Grayish color on the back
► **Between 32 and 35 transverse rows of dorsal scales.**
► Posterolateral scales of the head with a conical end.

- 1) Three occipital scales.
- 2) Six to eight scales on the back of the neck
- 3) Two primary temporal scales in contact with the postoculars

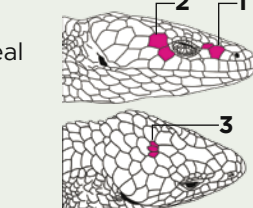


Abronia mixteca MX **VU** **II** **Pr**



► Between 28 and 31 transverse rows of dorsal scales.
► **Posterolateral scales of the head with a conical end.**
► At least six scales on the back of the neck

- 1) Anterior superciliary in contact with the cantholoreal scale.
- 2) Two primary temporal scales in contact with the postoculars
- 3) Three occipital scales.



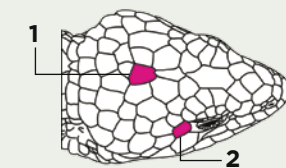
Abronia deppii MX **EN** **II** **A**



► Between 27 and 29 transverse rows of dorsal scales.
► Dark vermiculations, not very visible, in the scales of the back of the head.

► **Postereolateral scales of the head not protruding**

- 1) One occipital scale
- 2) Just one inferior primary temporal scale in contact with the postoculars

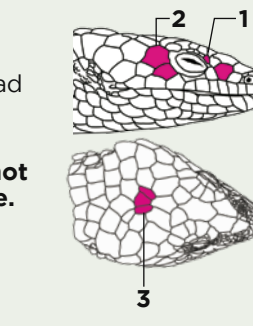


Abronia oaxacae MX **VU** **II** **A**

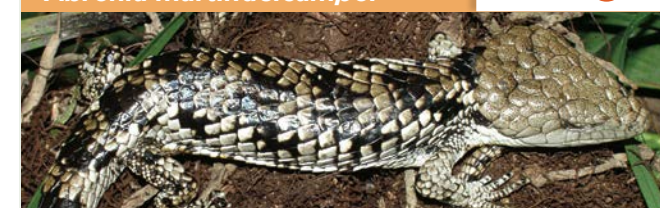


► Between 27 and 29 transverse rows of dorsal scales.
► Posterolateral scales of the head protruding and with a conical end.

- 1) **Anterior superciliary does not contact the cantholoreal scale.**
- 2) Two primary temporal scales in contact with the postoculars.
- 3) Three occipital scales.

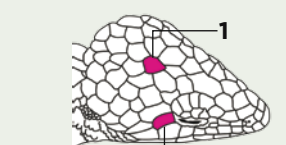


Abronia martindelcampoi MX **EN** **II**



► Between 24 and 28 transverse rows of dorsal scales.
► Dark vermiculations, fine but visible in the scales of the back of the head
► Big protruding postlateral scales

- 1) One occipital scale
- 2) Just one inferior primary temporal scale in contact with the postoculars

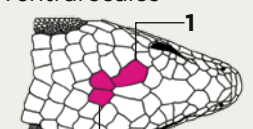


Abronia mitchelli MX **DD** **II** **Pr**



► Greenish gray dorsal color with black speckles and irregular brown spots.
► Ventral scales adjacent to the ventrolateral fold are of similar size to the rest of the ventral scales

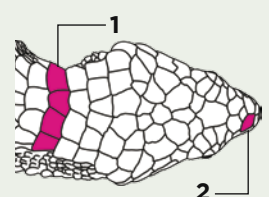
- 1) Parietal scales do not contact the median supraoculars
- 2) **Two occipital scales**





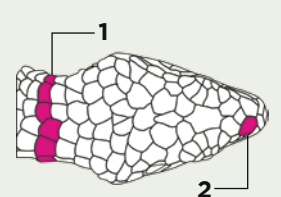
Uniform green or bluish color, without transverse bands on the back. Tail without transverse bands in the ventral region.

- 1) Four scales on the back of the neck (occasionally six)
- 2) **Canthal scales fused with posterior internasal scales**



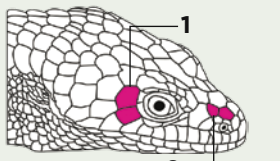
Whitish creamy or yellowish color, with six to eight dark transverse spots. Tail with incomplete transverse bands on the ventral surface.

- 1) **Six scales on the back of the neck**
- 2) Canthal scales fused with posterior internasal scales



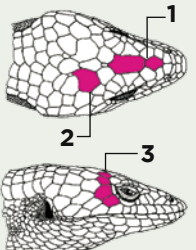
Generally greenish or brownish green color, with dark dorsal transverse bands more evident on the sides. Tail with incomplete transverse bands on the ventral surface of the body and tail.

- 1) Two lower temporal scales in contact with postoculars
- 2) **Canthal scales distinguishable from the posterior internasals.**



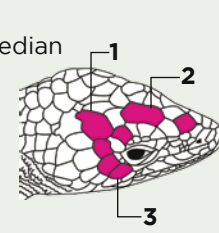
Brown back occasionally with greenish tones, yellowish hands and legs

- 1) Frontonasal and frontal scale in contact
 - 2) Parietal scale does not contact the median supraoculars
 - 3) Four primary temporal scales
- > **30 to 33 rows of dorsal scales**



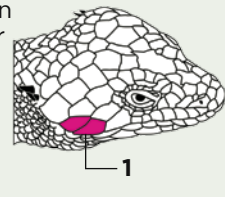
Back of the body and tail of olive green color, with the edges of the scales yellowish.

- 1) Parietal scales in contact with median supraoculars.
 - 2) Frontonasal scale does not contact frontal scale
 - 3) Three primary temporal scales
- > **Between 34 and 36 rows of dorsal scales**



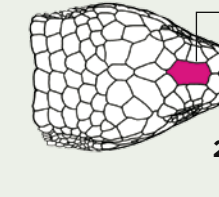
Greenish gray or blue green back with black speckles.

- Males usually with orange spots on temporal region, on spines and/or on edges of dorsal scales.
- 1) **Posteriormost supralabial scale of similar size to the previous temporal one.**



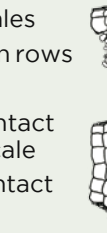
Green back and sides of body usually lighter

- > **Suprauricular scales like rounded or truncated spines**
- 1) Frontonasal scale does not contact frontal scale
- 2) **Supranasal scales enlarged but do not touch**



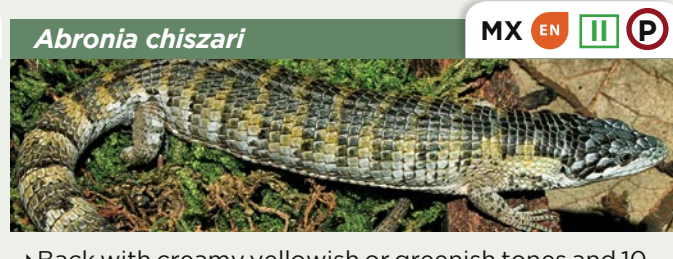
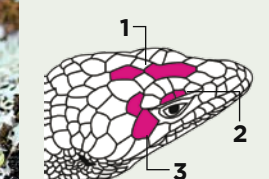
Brownish green back with dark spots in the shape of a "v". Scales of the back with keels

- > 12 longitudinal rows of ventral scales
- > Preauricular scales granular and in rows
- 1) Three primary temporal scales
- 2) **Posterior subocular scale in contact with lower primary temporal scale**
- 3) **Frontonasal scale usually in contact with frontal**



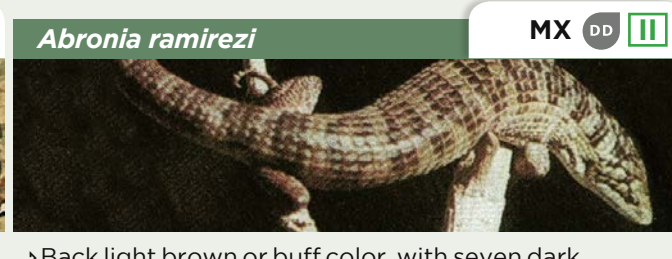
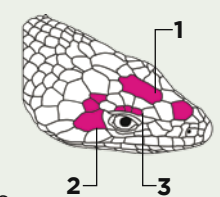
Buff pale color with seven to nine transverse dark spots. Generally 10 to 12 longitudinal rows of ventral scales

- 1) **Frontonasal and nasal scales do not contact or have minimal contact.**
 - 2) Two to three lateral supraocular scales.
 - 3) Two to three primary temporal scales.
- > Usually more than 17 subdigital lamellae on the fourth toe
- > Usually between 38 and 43 transverse rows of dorsal scales.



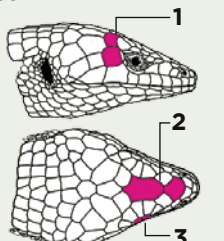
Back with creamy yellowish or greenish tones and 10 or more dark transverse spots.

- > More than 10 longitudinal rows of ventral scales
- > More than 17 subdigital lamellae on the fourth toe
- > Usually between 40 and 47 transverse rows of dorsal scales.
- 1) Frontonasal and frontal scales do not contact.
- 2) **Three primary temporal scales**
- 3) 3) Three lateral supraocular scales



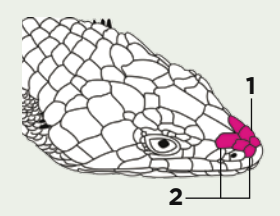
Back light brown or buff color, with seven dark transverse spots.

- > 10 longitudinal rows of ventral scales
 - 1) Two to three primary temporal scales
 - 2) **Frontonasal and nasal scales are in contact.**
 - 3) Two lateral supraocular scales
- > 17 or less, subdigital lamellae on the fourth toe



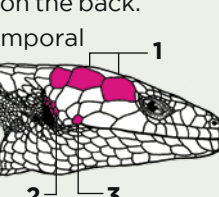
Brown back with lighter edge on the scales

- > Usually without frontonasal scale
- 1) **Supranasal scales expanded and in contact with each other**
- 2) **Pair of anterior internasal scales separated from the posterior pair.**



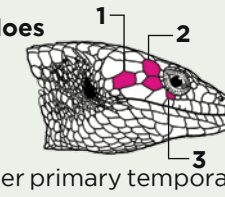
Brown back (reddish or gray) with dark transverse spots.

- > 12 to 14 longitudinal rows of scales on the back.
- 1) Primary and secondary upper temporal scales larger than the tertiary.
- 2) **Preauricular scales with irregular accommodation**
- 3) **Last infralabial scale is small**



Dark green or emerald back. Scales of the back with edge of yellowish green color. Five to six spines on each side of the head. Yellowish scales in the form of lamellae under the fingers.

- 1) **Lower tertiary temporal scale does not contact median primary temporal**
- 2) Two primary temporal scales in contact with the postoculars
- 3) **Subocular separated from the lower primary temporal**



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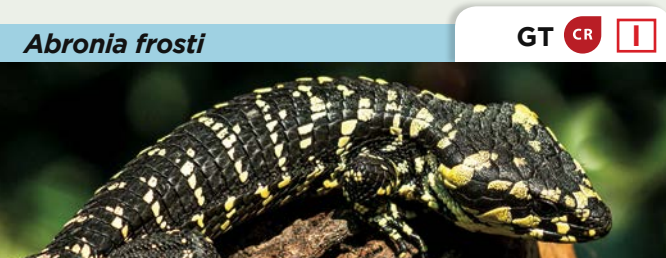
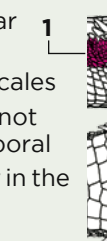
FOLLOW THIS LINK TO CONSULT ADDITIONAL GUIDE MATERIAL

Species similar to the dragons, bibliographical references used in this compilation, more photographs of dragons, consults with experts, credits of the photographs, general acknowledgments, etc.



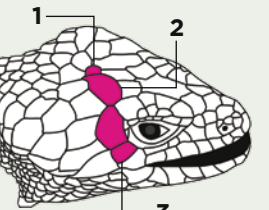
Yellowish green back. Scales of the back with keels.

- > 12 longitudinal rows of ventral scales
- 1) **Preauricular scales with irregular arrangement**
- 2) **Four or five primary temporal scales**
- 3) **Posterior subocular scale does not contact the lower primary temporal**
- 4) **Frontonasal scale usually wider in the back**



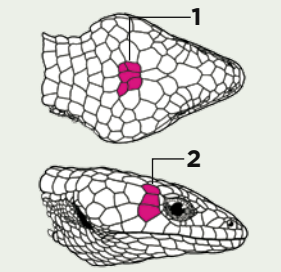
Light gray or yellowish color with dark spots

- > Between 14 and 16 longitudinal rows of ventral scales
- 1) One occipital scale
- 2) **Parietal scale in contact with median supraocular scales**
- 3) **Two primary temporal scales in contact with the postoculars**



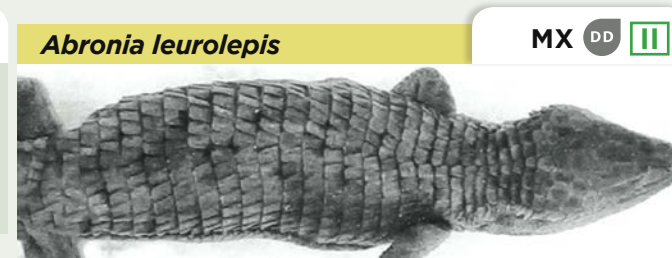
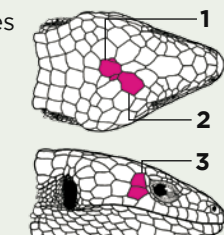
Brown color with a pattern of transverse spots, occasionally not well defined

- > 12 longitudinal rows of ventral scales
- 1) Five occipital scales
- 2) **Three primary temporal scales in contact with the postoculars**



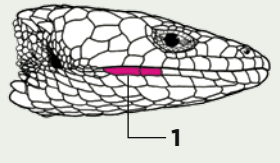
Brown color with dark transverse spots visible on the sides. Occasionally a thin dark eye mask towards the auricular region.

- > 14 longitudinal rows of ventral scales (occasionally 12)
- 1) One to three occipital scales
- 2) **Parietal scale does not contact median supraoculars**
- 3) **Two primary temporal scales in contact with postoculars**



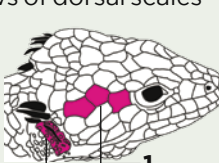
Back grayish olive with dark, thin and irregular spots usually in the form of a "v".

- > Frontonasal scale absent
- 1) **Last infralabial scale elongated in comparison to the penultimate one.**



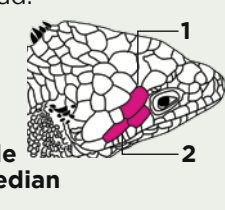
Brown back with irregular dark brown spots.

- > Males usually with reddish orange spots on lips and temporal region.
- > Between 14 and 15 longitudinal rows of dorsal scales
- 1) **Primary and secondary upper temporal scales of similar size to the tertiary.**
- 2) **Preauricular scales granular and arranged in rows**



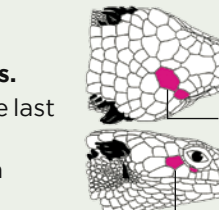
Gray or brown back with shades of yellowish green. Dorsal scales with dark in the front. A maximum of eight spines on each side of the head.

- > Yellowish scales in the form of lamellae under the fingers
- 1) **Two primary temporal scales in contact with postoculars**
- 2) **Lower secondary temporal scale large and in contact with the median primary temporal**



Back cream or pale green with black spots. Dorsal scales with dark in the front. Nine to 11 spines on each side of the head.

- > **Black or dark brown scales in the form of lamellae under the fingers.**
- 1) **Parietal scale in contact with the last median supraocular scale.**
- 2) **Subocular scale separated from the lower primary temporal**



Back green or pale turquoise with black spots.

- > Males usually have orange spots on the temporal region
- 1) **Posteriormost supralabial scale large and elongated. Larger than the previous scale**

