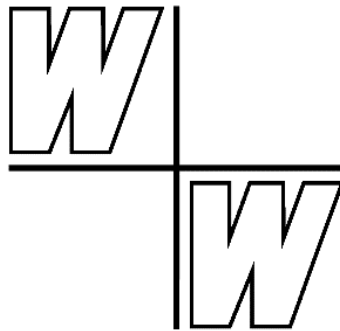


Data Collection on Intergeneric Hybrids and Basic Types: **Reptilia**

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Studiengemeinschaft Wort und Wissen
<https://www.wort-und-wissen.org/artikel/data-collection-basic-types/>

"REPTILIA"

4 orders, 78 families, 1270 genera, 12000 species

reptiles = Reptilien

*Systematics according to reptile database 2026 and en.wikipedia 2026.
Not all 78 families are listed.*

4 orders:

Crocodylia crocodiles etc. = Krokodile.

Rhynchocephalia tuataras = Brückenechsen.

Squamata lizards and snakes = Echsen, Schlangen, Doppelschleichen.

Testudines turtles = Schildkröten.

Summary:

41 intergeneric hybrids, in 13 families.

11 preliminary basic types (average species number $412 / 11 = 37$ species).

Basic type level: < family 5, families 6.

Boidae subfamily Boinae 5: 34. **1 IG**

Chelidae subfamily Chelodinae 7: 43. **2 IG**

Cheloniidae 5: 6. **4 IG**

Colubridae Colubrinae tribe Lampropeltini 11: 72. **4 IG**

Crocodylidae subfamily Crocodylinae (*Crocodylus*) 1: 14. – (7 IS)

Emydidae 12: 53. **8 IG**

Geoemydidae 23: 70. **10 IG**

Kinosternidae subfamily Kinosterninae 2: 22. **1 IG**

Pythonidae 11: 38. **5 IG**

Sphenodontidae* 1: 1. – (order Rhynchocephalia)

Testudinidae 16: 59. **2 IG**

Abbreviations:

° = taxa actually not accepted in the rank of a genus, e.g. *Cerasus*° (= *Prunus* p.p.)

* = only extant family of the order

10: 50 etc. The numbers behind the names of families etc. refer to extant genera and species

IS = interspecific hybrid. **IG** = intergeneric hybrid. **IST** = intersubtribal hybrid.

IT = intertribal hybrid. **ISF** = intersubfamilial hybrid. **IF** = interfamilial hybrid.

EC = embryo culture or ovule culture

SO = somatic hybrid by cell fusion; normally these hybrids are asymmetric

AS = asymmetric hybrids, they do not equally express maternal and paternal features

HY = assumed intergeneric hybridogeneous origin of a taxon.

nat. hyb. = natural hybrid, **art. hyb.** = artificial hybrid

Colors within the crosses:

Red letters: intergeneric hybrids (incl. former IG).

Violet letters: multigeneric = plurigeneric hybrids.

Gray letters: hybridity unconfirmed or erroneous.

Green letters: notes on tribes, subfamilies etc. involved in the hybridization.

Yellow shaded: Notes concerning basic types.

General references on Reptilia:

Hennigan T (2014a) An initial estimate toward identifying and numbering the Ark turtle and crocodile kinds. *Answers Research Journal* 7, 1–10.

<https://assets.answersresearchjournal.org/doc/v7/ark-turtle-crocodile-kinds.pdf>
orders *Crocodylia* + *Testudines*.

Hennigan T (2014b) An initial estimate toward identifying and numbering extant tuatara, *Amphisbaena*, and snake kinds. *Answers Research Journal* 7, 31–47.

Jancúchová-Lásková JE et al. (2015) Are genetically distinct lizard species able to hybridize? A review. *Current Zoology* 61, 155–180. *Squamates except snakes. No relationship between genetic distance and hybrid fertility was found.*

Mertens R (1950) Über Reptilienbastarde. *Senckenbergiana* 31, 127–144.

Mertens R (1956) Über Reptilienbastarde. II. *Senckenbergiana Biologica* 37, 383–394.
https://www.podarcis.de/AF/Bibliografie/BIB_8752.pdf

Mertens R (1964) Über Reptilienbastarde III. *Senckenbergiana Biologica* 45, 33–49.
Interspecific hybrids only.

Mertens R (1968) Über Reptilienbastarde. IV. *Senckenbergiana Biologica* 49, 1–12.

Uetz P (editor) (2026) The Reptile Database. <https://www.reptile-database.org/>
extant taxa only

Crocodylia 3 families 8–9: 26 + many extinct taxa

crocodilians = Krokodile

3 families:

Alligatoridae 4: 8, Crocodylidae 4: 19, Gavialidae 2: 2.

Crocodylia: Alligatoridae 2: 8 + many extinct taxa

caimans and alligators = Alligatoren und Kaimane

2 subfamilies:

Alligatorinae *Alligator* 3, Caimaninae *Caiman* 5.

Hennigan (2014a) proposes the family as preliminary created kind.

IS:

Caiman crocodilus × *C. yacare* Brazaitis et al. (1998, p. 197)

Caiman latirostis × *C. yacare* Pacheco-Sierra & Amavet (2021, Tab. 7.1).

Crocodylia: Crocodylidae 3: 19 + extinct taxa

true crocodiles = Echte Krokodile

2 subfamilies:

Crocodylinae 1: 14 *Crocodylus* 14.

Osteolaeminae 2 *Mecistops* 2, *Osteolaemus* 3.

Probably **basic type family Crocodylidae subfamily Crocodylinae** (1: 14) as for the extant taxa. All 14 species of *Crocodylus* are connected by interspecific hybrids. Possibly the basic type covers the whole family. – Hennigan (2014a) proposes the family as preliminary created kind.

IS: *Crocodylus* 7 IS:

acutus × *moreletii* Pacheco-Sierra & Amavet 2021, Tab. 7.1; Pacheco-Sierra et al. 2018

acutus × *intermedius* Pacheco-Sierra & Amavet 2021, Tab. 7.1

acutus × *rhombifer* nat. hyb. Pacheco-Sierra & Amavet 2021, Tab. 7.1; Weaver et al.

2008; Hennigan 2014; Milián-García et al. 2015

mindorensis × *porosus* Tabora et al. 2012, 1; Fitzsimmons et al. 2002

niloticus × *porosus*, *siamensis* Wei et al. 2022

porosus × *siamensis* art. hyb. Wei et al. 2022; Hennigan 2014; Milián-García et al. 2015

rhombifer × *siamensis* Weaver et al. 2008; Fitzsimmons et al. 2002

Crocodylia: Gavialidae 2: 2

gharials = Gaviale

Gavialis 1, *Tomistoma* 1 (formerly included in Crocodylidae).

Hennigan (2014a) proposes the family as preliminary created kind.

References on Crocodylia:

- Brazaitis et al. (1998) doi: 10.1163/156853898X00476
Fitzsimmons et al. (2002) <https://doi.org/10.1002/jez.10201>
Hennigan T (2014) An initial estimate toward identifying and numbering the Ark turtle and crocodile kinds. Answers Research Journal 7, 1–10.
<https://answersresearchjournal.org/ark-turtle-crocodile-kinds/>
Milián-García et al. (2015) <https://www.nature.com/articles/hdy201496>
Pacheco-Sierra G & Amavet PS (2021) Hybridization and speciation among New-World crocodilian species. In: Zucoloto RB et al. (eds) Conservation Genetics of New World Crocodilians. Springer, Cham. https://doi.org/10.1007/978-3-030-56383-7_7.
Pacheco-Sierra et al. (2018) doi: 10.3389/fevo.2018.00138
Tabora et al. (2012) doi: 10.11646/zootaxa.3560.1.1
Weaver et al. (2008) doi: 10.1002/jez.471
Wei et al. (2022) <https://doi.org/10.5358/hsj.41.101>

Rhynchocephalia 1 family 1: 1 + many extinct families
tuataras = Brückenechsen

Rhynchocephalia: Sphenodontiidae* 1: 1 + several extinct
genera

Only one species: *Sphenodon punctatus*.

Probably **basic type family Sphenodontidae*** (1: 1) as for the extant species, due to its isolated position as only family of the order. It is unresolved to which extent the extinct taxa of the family or of the order belong to the same basic type. The oldest fossil finds of the order are dated to 238–240 million years old (Jones et al. 2013. <https://doi.org/10.1186/1471-2148-13-208>), family members are about 185–190 million years old (Evans & Jones 2010, Fig. 2.1. doi:10.1007/978-3-642-10311-7_2), and members of the same subfamily are at least 145 million years old (Villa et al. 2021 <https://doi.org/10.7717/peerj.11363>). – Hennigan 2014 proposes the family as a preliminary created kind.

Squamata 2–3 suborders, ca. 60 families, 11000 species +
extinct families
lizards and snakes, squamates = Schuppenkriechtiere (Echsen,
Schlangen, Doppelschleichen)

Monophyletic.

The subdivision is matter of debate.

suborder Lacertilia/Sauria ca. 7 superfamilies:

Amphisbaenia 6 families (or own suborder).

Diploglossa/Anguimorpha 3 families.

Iguania 14 families.

Gekkota 7 families.

Scincomorpha 4 families.

Lacertoidea 4 families.

Varanoidea 3 families.

suborder Serpentes/Ophidia ca. 6 superfamilies, e.g.:

Pythonoidea 3 families.

Booidea 1 family.

Colubroidea 1 family.

Scolecophidia 5 families.

Hennigan (2014b) proposes 1–2 created kinds for Amphisbaenia and 41 created kinds for Serpentes.

References on Squamata:

Hennigan T (2005) An initial investigation into the baraminology of snakes: Order - Squamata, Suborder Serpentes. Creation Res. Soc. Quarterly 42, 153–160.

Hennigan T (2014a) An initial estimate toward identifying and numbering the Ark turtle and crocodile kinds. Answers Research Journal 7, 1–10.

Hennigan T (2014b) An initial estimate toward identifying and numbering extant tuatara, Amphisbaena, and snake kinds. Answers Research Journal 7, 31–47.

Jancúchová-Lásková JE et al. (2015) Are genetically distinct lizard species able to hybridize? A review. Current Zoology 61, 155–180. [Squamates except snakes. No relationship between genetic distance and hybrid fertility was found.](#)

Pyron RA et al. (2013) A phylogeny and revised classification of Squamata, including 4161 species of lizards and snakes. BMC Evol. Biol. doi: 10.1186/1471-2148-13-93 <https://pmc.ncbi.nlm.nih.gov/articles/PMC3682911/#F21>

Squamata: Anolidae 1: 440 (suborder Lacertilia, superfamily Iguania)

anoles = Saumfingerehsen

Formerly part of Polychrotidae or Iguanidae s.l. Synonym: Dactyloidae.

Anolis 440 (incl. *Audantia*°, *Chamaelinorops*°, *Ctenonotus*°, *Dactyloa*°, *Deiroptyx*°, *Norops*°, *Xiphosurus*°).

IS: *Anolis* ca. 8 IS:

Anolis aeneus × *A. trinitatis* **IS** nat. hyb., infertile, divergence 10 myr (million years) Lazell 1972; Losos & Thorpe 2004; Thorpe et al. 2018. However, hybrids show greatly reduced reproductive fitness (Gorman et al. 1971). Reptile-database

Anolis allisoni × *A. porcatu*s IS Wegener et al. 2019; Losos & Thorpe 2004

Anolis bimaculatus × *A. leachii* IS <https://www.anoleannals.org/2023/10/28/cases-of-interspecific-hybridization-within-anolis-of-the-bimaculatus-group-produced-in-a-private-breeding-facility/>

Anolis brevirostris × *A. distichus* IS Losos & Thorpe 2004

Anolis carolinensis (from USA) × *A. porcatu*s IS nat. hyb. (in USA, divergence 6–12 myr or 6.000.000–13.000.000 generations) Wegener et al. 2019

Anolis chlorocyanus × *A. coelestinus* IS (suggested by the presence of morphologically intermediate forms) Losos & Thorpe 2004

Anolis chlorocyanus × *A. cyanostictus* IS Gabot-Rodríguez et al. 2020. doi: 10.33800/nc.vi15.217

Anolis ferreus × *A. marmoratus marmoratus* IS <https://www.anoleannals.org/2023/10/28/cases-of-interspecific-hybridization-within-anolis-of-the-bimaculatus-group-produced-in-a-private-breeding-facility/>

Anolis grahami × *A. lineatopus* IS Losos & Thorpe 2004

Anolis krugi × *A. pulchellus* IS nat. hyb. (divergence 1.29 myr) Farleigh & 2023; Wegener et al. 2019

Anolis oculatus × *A. terraealtae* IS art. hyb. <https://www.anoleannals.org/2023/10/28/cases-of-interspecific-hybridization-within-anolis-of-the-bimaculatus-group-produced-in-a-private-breeding-facility/>

References:

- Farleigh K (2023) Signals of differential introgression in the genome of natural hybrids of Caribbean anoles. *Molecular Ecology* 32, 6000–6017, <https://doi.org/10.1111/mec.17170>.
- Gabot-Rodríguez E et al. (2020) Natural hybridization between two species of green Anoles: morphological and genetic Evidence. *Novitates Caribaea* 15, 73–95. doi: 10.33800/nc.vi15.217
- Losos JB & Thorpe RS (2004) Evolutionary diversification of *Anolis* lizards: introduction. In: Dieckmann U et al. (ed.) *Adaptive speciation*. Cambridge University Press. <https://www.researchgate.net/publication/260513030>
- Wegener JE et al. (2019) Hybridization and rapid differentiation after secondary contact between the native green anole (*Anolis carolinensis*) and the introduced green anole (*Anolis porcatu*s). *Ecology and Evolution* 9, 4138–4148. <https://doi.org/10.1002/ece3.5042>

Squamata: Boidae 13: 62 + extinct genera. 1 IG (suborder Serpentes, superfamily Booidea)

boas, boids = Boas

6 subfamilies:

Boinae 5: 34 *Boa* 5, *Chilabothrus* 1, *Corallus* 9, *Epicrates* 5, *Eunectes* 4.

Calabariinae 1: 1 *Calabaria*.

Candoiinae 1: *Candoia*.

Erycinae: 3: 17 *Charina* 2, *Eryx* 13, *Lichanura* 2.

Sanziinae: 2: 4 *Acrantophis* 2, *Sanzina* 2.

Ungaliophidae 2: 3, *Exiliboa* 1, *Ungaliophis* 2.

In **Boidae** at least **subfamily Boinae** (5: 34) (New World distribution) belongs to the same basic type (see the phylogenies of Burbrink 2005, fig. 2-4. doi:

10.1016/j.ympev.2004.08.017; Onary et al. 2022, Fig. 6.

<https://doi.org/10.1080/14772019.2022.2068386>). – Hennigan (2014b) proposes the subfamily Boinae and the other subfamilies of Boidae as preliminary created kinds.

IS: *Corallus* 2 *IS* (*batesi* × *caninus* (capt. hyb.; litter are perfectly fertile. Angelo Cabodi, pers. comm. (from reptile-database); *caninus* × *hortulanus*.

(<https://thereptileroom.net/can-snakes-crossbreed/>).

Boa constrictor × *Eunectes notaeus* **Boinae** Ernst et al. 2014

References:

Ernst N et al. (2014) An unexpected occurrence – a case study on an intergeneric hybrid in giant snakes. *Revue Suisse de Zool.* 121, 293–317.

Squamata: Colubridae 304: 1938. 4 IG (suborder Serpentes, superfamily Colubroidea)

colubrids = Nattern

75 % of all snakes.

Monophyletic.

8 subfamilies, e.g.:

Colubrinae 93: 717 tribe Lampropeltini 11: 72: *Arizona* 2, *Bogertophis* 2, *Cemophora* 2, *Coronella* 2, *Elaphe* 18, *Lampropeltis* 25, *Pantherophis* 10, *Pituophis* 7, *Pseudelaphe* 2, *Rhinocheilus* 3, *Senticolis* 1, ...

Since 2002 many but not all species of the genus *Elaphe* have been moved to the genera *Bogertophis*, *Gonyosoma*, *Orthriophis*, *Pantherophis*, *Rhinechis*, *Senticolis*, *Zamenis* and more.

Probably **basic type Colubridae Colubrinae tribe Lampropeltini** (11: 72): 3 intergeneric hybrids connect the most distant genera (with exception of the basal genus *Senticolis*), see the figure below. – Hennigan (2014b) proposes the subfamily Colubrinae as preliminary created kind, and similar some other subfamilies of Culubridae.

Elaphe climacophora × *Pantherophis* ("*Elaphe*") *guttatus* (Japanese Rat Snake × Corn Snake) **Colubrinae** <https://shahfoladi.wixsite.com/snakes/knowledge>; <https://www.farbvarianten-lexikon.de/detail.php?name=Japanese-Corn&titel=Japanese-Corn>

Lampropeltis getula floridana, holbrooki × *Pantherophis alleghaniensis* Colubrinae

<https://shahfoladi.wixsite.com/snakes/knowledge>

Lampropeltis alterna, californiae, calligaster, catenifer, getula, holbrooki, mexicana, obsoletus, pyromenala, ruthvenii, triangulum × *Pantherophis* ("Elaphe") *guttatus* Colubrinae

Kreutz 2005 (reptile-database), <http://www.uk-hybrids.com/> 2012;

<http://www.nykota-kipusa.de/thema-hybrid/art-und-gattungshybriden/> 2012;

<http://www.cornsnakemorphgallery.com/milksnake/> 2012;

<https://thereptileroom.net/can-snakes-crossbreed/>;

<https://shahfoladi.wixsite.com/snakes/knowledge>;

<https://web.archive.org/web/20150709024606/>;

<http://banereptiles.weebly.com/jungle-corn-snakes.html>;

<https://www.farbvarianten-lexikon.de/detail.php?name=Japanese-Corn&titel=Japanese-Corn>

Lampropeltis splendida × *Pantherophis emoryi* Colubrinae

<https://shahfoladi.wixsite.com/snakes/knowledge>

Lampropeltis getula, ruthvenii × *Pituophis catenifer* Colubrinae <http://www.uk-hybrids.com/> 2012; <http://www.cornsnakemorphgallery.com/kingsnake/>

Pantherophis vulpinus × *Pituophis catenifer, melanoleucus* Colubrinae Le Clere et al. 2012 (nat. hyb.), <http://www.cornsnakemorphgallery.com/gopher/> 2012;

<http://www.nykota-kipusa.de/thema-hybrid/art-und-gattungshybriden/> 2012;

<http://www.fieldherpforum.com/forum/viewtopic.php?t=12731&p=151990> 2012;

<https://community.morphmarket.com/t/my-hybrid-collection/4151/35?page=2>

Examples of trigenetic hybrids:

Lampropeltis × *Pantherophis* × *Pituophis* Colubrinae <http://www.uk-hybrids.com/> 2012

Lampropeltis splendida × *Pantherophis guttatus* × *Lampropeltis californiae* ("Splendida Jungle Corns") Colubrinae <https://shahfoladi.wixsite.com/snakes/knowledge>;

<https://www.farbvarianten-lexikon.de/detail.php?name=Splendida-Jungle-Corn&titel=Splendida-Jungle-Corn>

Pantherophis guttatus × *Lampropeltis triangulum* × *Lampropeltis californiae* ("Super Pueblacorns") Colubrinae <https://shahfoladi.wixsite.com/snakes/knowledge>;

<https://iansvivarium.com/morphs/?m=pueblacorn>;

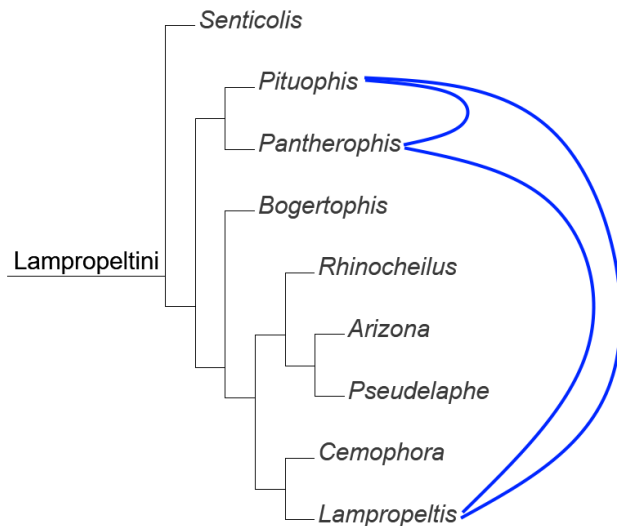
<https://www.deviantart.com/captbogat/art/Serrano-Super-Pueblacorn-147685254>

Pantherophis guttatus × *Pantherophis emoryi* × *Lampropeltis californiae* ("Jungle Creams")

Colubrinae <https://shahfoladi.wixsite.com/snakes/knowledge>;

<https://blog.naver.com/vkehthflgu/140201358679>

For lists and photos of hybrids see <https://shahfoladi.wixsite.com/snakes/knowledge> and <https://southerncaliforniakingsnakes.weebly.com/hybrids.html>



Colubridae Colubrinae tribe Lampropeltini: hybrids in the phylogeny of Pyron et al. (2013) <https://doi.org/10.1186%2F1471-2148-13-93>, from en.wikipedia (2026, CC BY SA 4.0, sub Lampropeltini). For other phylogenies: see <https://en.wikipedia.org/wiki/Lampropeltini>, Dahn et al. 2018, Figueroa et al. 2016 and Pyron RA et al. 2011.

References:

- Dahn HA (2018) Hidden diversity within the depauperate genera of the snake tribe Lampropeltini (Serpentes, Colubridae). *Molecular Phylogeny and Evolution* 129, 214–225. <https://www.sciencedirect.com/science/article/abs/pii/S1055790317306863>
- Fankhauser G & Cumming KB (2008) Snake hybridization: a case for intrabaraminic diversity. *Proc. Sixth Int. Conf. Creationism* 17–132. http://www.icr.org/i/pdf/research/ICC08_Snake_Hybrid.pdf
- Figueroa A et al. (2016) A Species-Level Phylogeny of Extant Snakes with Description of a New Colubrid Subfamily and Genus. *PLoS ONE* 11(9): e0161070. doi:10.1371/journal.pone.0161070
- Pyron RA et al. (2011) The phylogeny of advanced snakes (Colubroidea), with discovery of a new subfamily and comparison of support methods for likelihood trees. *Molecular Phylogenetics and Evolution* 58, 329–342. <https://doi.org/10.1016/j.ympev.2010.11.006>
- Hennigan T (2005) An initial investigation into the baraminology of snakes: Order - Squamata, Suborder Serpentes. *Creation Res. Soc. Quarterly* 42, 153–160.
- LeClere JB et al. (2012) Two naturally occurring intergeneric hybrid snakes (*Pituophis catenifer sayi* × *Pantherophis vulpinus*; Lampropeltini, Squamata) from the midwestern United States. *J. Herpetol.* 46, 257–262.

Squamata: Crotaphytidae 2: 11 (suborder Lacertilia, superfamily Iguania)

collared and leopard lizards = Halsband- und Leopardleguane

Formerly part of Iguanidae.

Crotaphytus 8, *Gabelia* 3.

IS: Montanucci (1983) from reptile-database: *Crotaphytus collaris baileyi* × *C. (insularis) bicinctores* hybrids appear to have lower fitness.

Squamata: Diplodactylidae 25: 150. 1 IG (suborder Lacertilia, superfamily Gekkota)

double-toed or Australasian gekkos = Doppelfingergekkos

Bavaya 41, *Correlophus* 3 (*belepensis*, *ciliatus*, *sarasinorum*), *Mniarrogekko chahoua*,

IS: <https://www.neukaledonien-gekkos.com/wichtige-infos/hybride/>) *Bavayia* several nat. hyb., *Correlophus ciliatus* × *C. sarasinorum* (capt. hyb. not long living)

Correlophus ciliatus × *Mniarrogekko chahoua*

https://en.wikipedia.org/wiki/List_of_genetic_hybrids 2025 without citation; cf.

<https://www.neukaledonien-gekkos.com/wichtige-infos/hybride/>;

<https://www.morphmarket.com/gb/c/reptiles/lizards/chahoua-gekkos/2018096> for sale

Correlophus sarasinorum × *Mniarrogekko chahoua* (capt. hyb. not long living)

<https://www.neukaledonien-gekkos.com/wichtige-infos/hybride/>

Squamata: Eublepharidae 6: 47 (suborder Lacertilia, superfamily Gekkota)

eyelid gekkos = Lidgekkos

Eublepharis, ...

IS: *Eublepharis macularius* × *E. angramainyu* IS (Frynta, Landová & Lásková 2015, 19 according to <https://lyonessandcub.com/2021/07/26/keep-a-hybrid-gecko/>; Jančúchová-Lásková et al. 2015, <https://doi.org/10.1371/journal.pone.0143630>)

Squamata: Gekkonidae 64: 950 (suborder Lacertilia, superfamily Gekkota)

common gekkos = Geckos

Gekko, *Lepidodactylus*, ...

IS:

Gekko hokouensis × *G. yakuensis* (Toda et al. 2001, Okamoto et al.: Genbank sequences; hybrid zones in South-Japan. Reptile-database)

Gekko tawaensis × *G. japonicus* (nat. hyb.) Toda et al. 2006.

<https://doi.org/10.1007/s10528-006-9010-9>)

Lepidodactylus moestus × *L. spec.* (→ *L. lugubris*) <https://geckotime.com/gecko-hybridization/>

Squamata: Iguanidae 9: 700 + 3 extinct genera. 1 IG (suborder Lacertilia, superfamily Iguania)

iguanas = Leguane

Formerly the family was much larger.

Amblyrhynchus, *Brachylophus*, *Cachryx*, *Conolophus*, *Ctenosaura*, *Cyclura*, *Dipsosaurus*, *Iguana*, *Sauromalus*.

IS:

Ctenosaura bakeri × *C. similis* Gutsche & Köhler 2004

Iguana delicatissima × *I. iguana* Vuillaume et al. 2015

Amblyrhynchus cristatus × *Conolophus subcristatus* Rassmann et al. 1997, 2004 (nat. hyb. Galapagos, viable), related taxa cf. http://en.wikipedia.org/wiki/Hybrid_Iguana, http://wn.com/Hybrid_Iguana

~~*Iguana* × *Ctenosaurus*~~ (*I. iguana* × *C. (bakeri × similis)*) Dirksen 2004 (no hybrid, only attempt of mating!

References:

Dirksen L (2004) Beobachtung eines Paarungsversuchs zwischen einem Hybrid-Männchen (*Ctenosaura bakeri* × *similis*) mit einem *Iguana iguana* Weibchen.

IGUANA-Rundschreiben 17, 15–17. **No hybrid!**

Gutsche A & Köhler G (2004) A fertile hybrid between *Ctenosaura similis* (Gray, 1831) and *C. bakeri* Stejneger, 1901 (Squamata: Iguanidae) on Isla de Utila, Honduras. Salamandra 2004, 201–206. <http://www.salamandra-journal.com/index.php/contents/2004-vol-40/198-gutsche-a-g-koehler/file>

Rassmann K et al. (1997) Hybridization between the Galapagos land and marine Iguana (*Conolophus subcristatus* and *Amblyrhynchus cristatus*). J. Zool. 242, 729–739.

Rassmann K et al. (2004) Tracing the evolution of the Galapagos Iguanas. pp. 71–83 in Iguanas: Biology and Conservation (California: University of California Press).

Vuillaume B et al. (2015) Genetic Evidence of Hybridization between the Endangered Native Species *Iguana delicatissima* and the invasive *Iguana iguana* (Reptilia, Iguanidae) in the Lesser Antilles: Management Implications. PLoS ONE 10 (6): e0127575. <https://doi.org/10.1371/journal.pone.0127575>

Squamata: Lacertidae 37: 280. 1 IG (suborder Lacertilia, superfamily Lacertoidea)

wall lizards, true lizards = Halsbandeidechsen

Lacerta 40, *Podarcis* 27, *Timon* 6, ...

IS:

Lacerta agilis, *viridis*, *schreiberi*, *strigata*, and *trilineata* hybrid experiments Rykena 1991.

<https://doi.org/10.1002/mmnz.19910670108>

Lacerta agilis × *L. viridis* IS art. hyb. Rykena & Henke 1978

Lacerta bilineata × *viridis* IS <https://feldherpetologie.de/heimische-reptilien-artensteckbrief/artensteckbrief-westliche-smaragdeidechse-lacerta-bilineata/>

Lacerta schreiberi × *agilis grusinica* IS Rykena 1996

Lacerta strigata × *viridis* IS Rykena 1996

Podarcis sicula × *tiliguerta* IS nat. hyb. Capula 2002

Podarcis sicula × *wagleriana* IS nat. hyb. Capula 1993

Lacerta × *Timon* **Lacertinae** Arnold et al. 2007

References:

Arnold EN, Arribas O & Carranza S (2007) Systematics of the Palaearctic and Oriental lizard tribe Lacertini (Squamata: Lacertidae: Lacertinae), with descriptions of eight new genera. Zootaxa 1430. 86 pp.

http://www.lacerta.de/AS/Bibliografie/BIB_605.pdf

Capula M (1993) Natural hybridization in *Podarcis sicula* and *P. wagleriana* (Reptilia: Lacertidae). Biochemical Systematics and Ecology 21, 373–380.

[https://doi.org/10.1016/0305-1978\(93\)90028-P](https://doi.org/10.1016/0305-1978(93)90028-P)

Capula M (2002) Genetic evidence of natural hybridization between *Podarcis sicula* and *Podarcis tiliguerta* (Reptilia: Lacertidae). Amphibia-Reptilia 23, 313–321. doi: 10.1163/15685380260449199

Heilig C (2008) Ruineneidechsen: Makroevolution oder Polyvalenz. Stud. Integrale J. 15, 76–88.

Rykena S (1991) Kreuzungsexperimente zur Prüfung der Artgrenzen im Genus *Lacerta* sensu stricto. Mitteilungen aus dem Museum für Naturkunde in Berlin. Zoologisches Museum und Institut für Spezielle Zoologie (Berlin) 67, 55–68.

<https://doi.org/10.1002/mmnz.19910670108>

Rykena S (1996) Experimental interspecific hybridization in the genus *Lacerta*. Israel Journal of Ecology and Evolution 42, 171–184.

<https://doi.org/10.1080/00212210.1996.10688841>

Rykena S & Henke L (1978) Bastardierung von *Lacerta viridis* und *Lacerta agilis* im Terrarium (Reptilia: Sauria: Lacertidae). Salamandra 1978, 14 (3), 147–152.

Squamata: Pythonidae 11: 38. 5 IG (suborder Serpentes, superfamily Pythonoidea)

pythons = Pythons

Monophyletic.

Antaresia 4, *Apodora* 1, *Aspidites* 2, *Bothrochilus* 1, *Leiopython* 1, *Liasis* 3, *Malayophyton* 2, *Morelia* 7, *Nyctophilophyton* 1, *Python* 10, *Simalia* 6.

Probably **basic type Pythonidae** (11: 38) as a well-defined monophyletic family with 5 intergeneric hybrids connecting all important parts of the family, see the figure

below. (The genera in the family are very unstable in cladograms, see Barker et al. 2015), i.e. their positions change often.) – Hennigan (2014b) proposes the family as preliminary created kind.

IS:

Morelia viridis × *M. spilota* IS <https://thereptileroom.net/can-snakes-crossbreed/>

Python anchietae × *P. brongersmai* × *Python regius* IS hyb. cap.

<https://thesnakeboss.wordpress.com/category/hybrid-python/>;

<https://www.youtube.com/watch?v=zZky2bqoAOE&t=4s>

Python anchietae × *P. regius* IS <https://thereptileroom.net/can-snakes-crossbreed/>

Python brongersmai, *bivittatus*, *anchietae* × *P. regius* IS <https://thereptileroom.net/can-snakes-crossbreed/>; <https://www.morphmarket.com/eu/c/reptiles/pythons/ball-pythons/gene/hybrid>

Python sebae natalensis × *P. molurus bivittatus* IS Branch & Erasmus 1984

Aspidites ramsayi × *Python regius* (nickname „Wallball")

<https://thereptileroom.net/can-snakes-crossbreed/>

Liasis mackloti × *Morelia spilota* (= „*Python*“ *spilotes*) Banks & Schwaner 1984 (capt. hyb., fertile); Hoser 1988, 2001

Malayopython reticulatus × *Python regius* (nickname „Balltic")

<https://thereptileroom.net/can-snakes-crossbreed/>

Malayopython („*Python*“) *reticulatus* × *Python bivittatus* <https://thereptileroom.net/can-snakes-crossbreed/>, <https://animalscene.mb.com.ph/the-bat-eater/>;

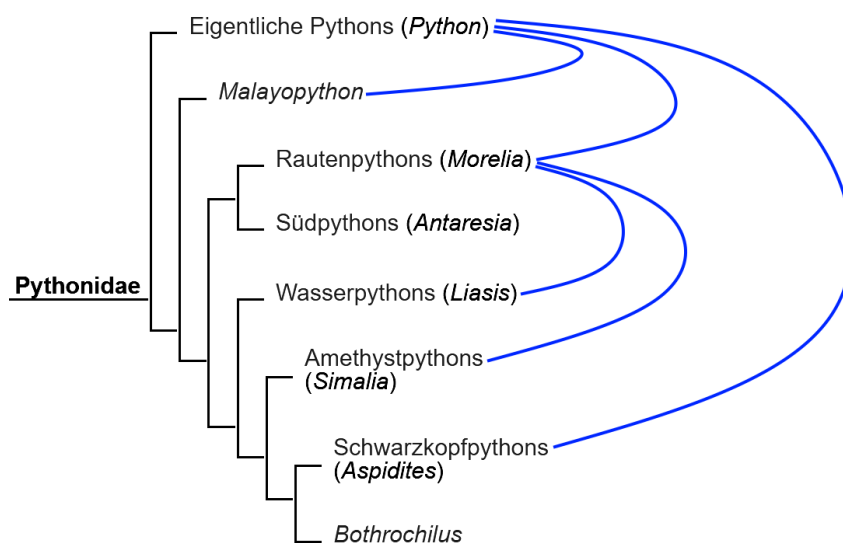
<https://www.morphmarket.com/morphpedia/reticulated-pythons/hybrid/>

Morelia spilota („*Python*“ *spilotes*) × *Python regius* (nickname „Carpall")

<https://thereptileroom.net/can-snakes-crossbreed/>;

<https://www.youtube.com/watch?v=466Z9zD6vIU>

Morelia spilota („*Python*“ *spilotes*) × *Simalia amethystina* („*Python*“) *amethystina* Banks & Schwaner 1984 (capt. hyb.)



Pythonidae: hybridization in the phylogeny of Reynolds RG et al. (2014)

[doi:10.1016/j.ympev.2013.11.011](https://doi.org/10.1016/j.ympev.2013.11.011)), from de.wikipedia (2026, CC BY SA 4.0)

References:

- Banks C & Schwaner TD (1984) Two cases of interspecific hybridization among captive boid snakes. *Zoo Biology* 3, 221–227.
- Barker DG et al. (2015) A review of the systematics and taxonomy of Pythonidae: an ancient serpent lineage. *Zoological Journal of the Linnean Society* 2015. doi: 10.1111/zoj.12267
- Branch B & Erasmus H (1984) Captive breeding of pythons in south Africa, including details of an interspecific hybrid (*Python sebae natalensis* × *Python molurus bivittatus*). *Journal of the Herpetological Association of Africa*. 1984, 30:1–10. <https://www.tandfonline.com/doi/epdf/10.1080/04416651.1984.9650132>
- Hennigan (2014) An initial estimate toward identifying and numbering extant Tuatara, Amphisbaena, and Snake Kinds. *Answers Research Journal* 7, 31–47. <http://www.answersingenesis.org/articles/arj/v7/n1/snakes>
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Squamata: Teiidae 18: 150 + extinct taxa (suborder Lacertilia, superfamily Lacertoidea)

tegus and whiptails

2 subfamilies.

Aspidoscelis, *Teius*, ...

IS: *Aspidoscelis exsanguis* × *A. inornatus* **HY** The parthenogenetic species *A. neomexicana* arose from a hybridization event involving a male *A. inornatus* and a female *A. tigris*. Reptile-database.

Squamata: Varanidae 1: 80 + 9 extinct genera (suborder Lacertilia, superfamily Varanoidea)

monitor lizards = Warane

1 extant genus *Varanus* (11 subgenera, 80 species).

IS: *Varanus panoptes horni* × *V. gouldii flavirufus* (en.wikipedia 2024)

~~*Varanus salvadorii* × *V. salvator*~~. Parthogenesis, not hybridization (“there have been reports of hybridization within the genus *Varanus*. However, just like the

parthenogenetic offspring these accounts were not backed up by science")
<https://reptilesmagazine.com/project-varanus-salvatorii/> 2021

Squamata: Viperidae 32: 224 (suborder Serpentes, superfamily unresolved)

vipers = Vipern

4 subfamilies: Azemiopinae 1, Crotalinae 22, Viperinae 13.

Hennigan (2014b) proposes the 3 subfamilies as preliminary created kinds.

IS:

Agkistrodon piscivorus × *A. contortrix* <https://thereptileroom.net/can-snakes-crossbreed/>

Bitis nasicornis × *B. gabonica* <https://thereptileroom.net/can-snakes-crossbreed/>;
<https://www.africansnakebiteinstitute.com/articles/can-snakes-crossbreed-2/>

Crotalus adamanteus × *C. horridus* <https://thereptileroom.net/can-snakes-crossbreed/>

Vipera nikolskii × *V. berus* Zinenko 2003

Vipera aspis × *V. berus* (nat. hyb.) Alzhoetmar 2017 see reptile database

Crotalus horridus × *Sistrurus catenatus* **Crotalinae** Bailey 1942 (nat. hyb., fertile),
Klauber 1997 ("questionable").

References:

Bailey RM (1942) An intergeneric hybrid rattlesnake. The American Naturalist 76 (765), 376–385. <http://www.jstor.org/pss/2457583>

Klauber LM (1997) Rattlesnakes: Their habits, life histories and influence on mankind.

Zinenko O (2003) First generation hybrids between the Nikolsky's adder, *Vipera nikolskii*, and the common adder, *Vipera berus* (Reptilia, Serpentes, Viperidae).

Vestnik Zoologii 37, 101–104. <https://www.researchgate.net/publication/263313337>

Testudines 2 suborders, 14 families

turtles = Schildkröten

2 suborders:

Cryptodira cryptodiran turtles = Halsberger-Schildkröten

11 extant families (see below) + several extinct families.

Pleurodira side necked turtles = Halswender-Schildkröten

3 extant families Chelidae 15, Pelomedusidae 2, Podocnemididae 3.

References on Testudines:

- Brophy TR, Frair W & Clark D (2006) A review of interspecific hybridization in the order Testudines. p. 17 in Sanders R (ed.) Proc. Fifth Int. Conf. BSG Group. Occas. Papers BSG Study Group.
https://digitalcommons.liberty.edu/cgi/viewcontent.cgi?article=1066&context=bio_chem_fac_pubs A supplementary powerpoint presentation with many details can be downloaded: https://digitalcommons.liberty.edu/bio_chem_fac_pubs/67/
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- Fritz U & Baur M (1995): Schildkröten-Hybriden. 1. Halswender-Schildkröten. [Turtle hybrids. 1. Side-necked turtles (Pleurodira)]. Herpetofauna 17 (94), 28–34.
- Hennigan T (2014a) An initial estimate toward identifying and numbering the Ark turtle and crocodile kinds. Answers Research Journal 7, 1–10.
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- Robinson DA (1997) A mitochondrial DNA analysis of the Testudine apobaramin. Creation Res. Soc. Quarterly 33, 262–272.
- Wise KP (1992) Practical Baraminology. Creation ex Nihilo Techn. J. 6 (2), 122–137.
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<http://blogs.scientificamerican.com/tetrapod-zoology/2012/11/17/quick-history-of-turtles/>

Testudines: Carettochelyidae 1: 1 (suborder Cryptodira, superfamily Trichonoidea)

pig-nosed turtle, fly river turtle, pitted-shelled turtle = Papua-Weichschildkröte
Carettochelys insculpta.

Possibly basic type together with Trichonidae?

Testudines: Chelidae 15: 60 + many extinct genera 2 IG **(suborder Pleurodira, probably own superfamily)**

Austro-South American side-neck turtles = Schlangenhalsschildkröten

3–4 subfamilies:

Chelinae 7 *Acanthochelys*, *Chelus*, *Mesoclemmys*, *Phrynops*, *Platemys* 1, *Ranacephala*, *Rhinemys* 1.

Chelodinae 6: 42 *Chelodina* 16, *Elseya* 15, *Emydura* 6, *Elusor* 1, *Myuchelys* 3, *Rheodytes* 1.

Hydromedusinae 1: 2 *Hydromedusa* 2.

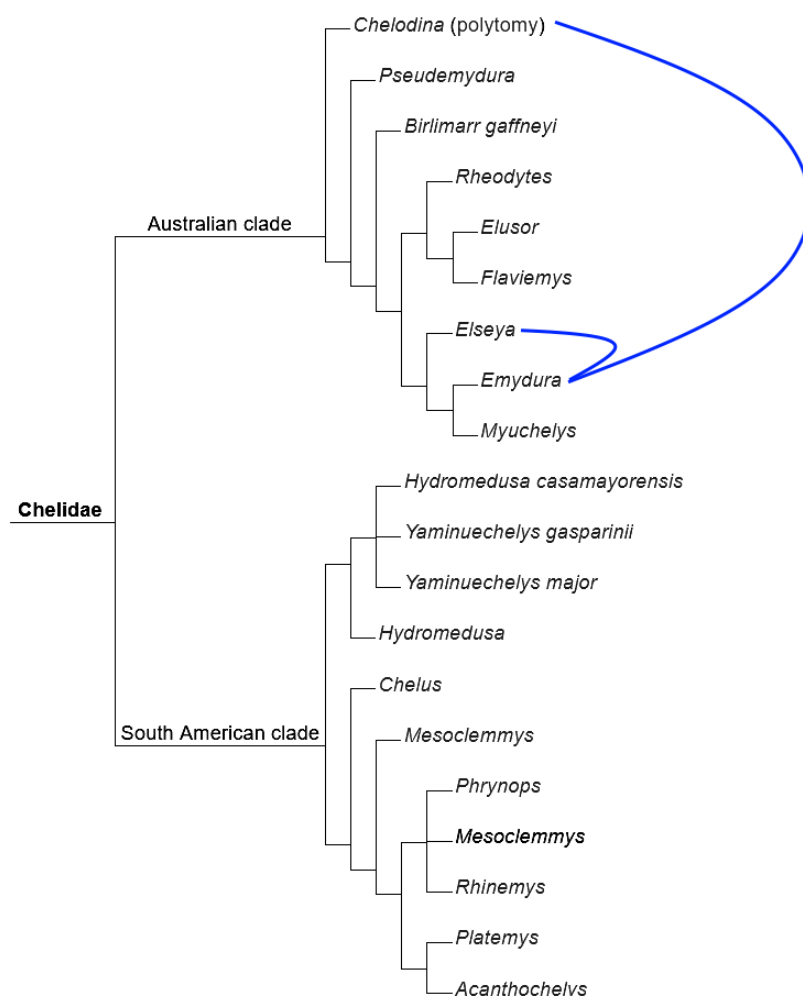
Pseudemydurinae 1: 1 *Pseudemydura* 1 (now often included in Chelodininae).

Probably **Chelidae subfamily Chelodininae** (incl. Pseudemydurinae) (7: 43). The two intergeneric hybrids connect the whole subfamily, see the figure below. – Hennigan (2014a) proposes the whole family as preliminary created kind.

IS: see Brophy et al. (2006).

Chelodina longicollis × *Emydura albertisii* **Chelodininae** Fritz & Baur 1995, see Brophy et al. 2006

Elseya novaeguineae × *Emydura albertisii* **Chelodininae** Fritz & Baur 1995, see Brophy et al. 2006



Chelidae: hybridization in the phylogeny of Holley et al. (2020) [doi:10.1163/18759866-20191419](https://doi.org/10.1163/18759866-20191419), from en.wikipedia (2026, CC BY SA 4.0), demonstrating the connection in **subfamily Chelodininae** incl. Pseudemydurinae (Australian clade). Other phylogenies are provided here: Fujita MK et al. (2004) and Wilson LAB & Sánchez-Villagra MR (2011).

References:

Fritz U & Baur M (1995) Schildkröten-Hybriden. 1. Halswender-Schildkröten (Pleurodira) Herpetofauna 17 (94), 28–34.

Fujita MK et al. (2004) Turtle phylogeny: insights from a novel nuclear intron.

Molecular Phylogenetics and Evolution 31, 1031–1040.

doi:10.1016/j.ympev.2003.09.016

Wilson LAB & Sánchez-Villagra MR (2011) Evolution and phylogenetic signal of growth trajectories: The case of chelid turtles. J. Exp. Zool. (Mol. Dev. Evol.) 316(1):50–60. doi: 10.1002/jez.b.21380

Testudines: Cheloniidae 5: 6 + 25 extinct genera. 4 IG **(suborder Cryptodira, superfamily Chelonioidea)**

sea turtles = Meeresschildkröten

2 subfamilies:

Caretatinae 2 *Caretta* 1 *caretta*, *Lepidochelys* 2 *kempii*, *olivacea*, ...

Cheloniinae 3 *Chelonia* 1 *mydas*, *Eretmochelys* 1 *imbricata*, *Natator* 1 *depressus* (= *Chelonia depressa*)

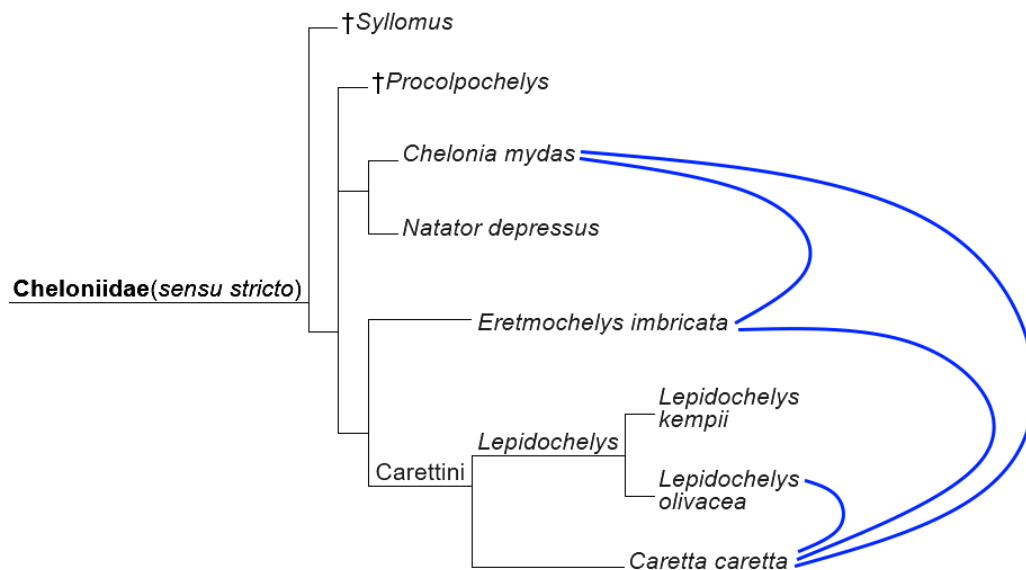
Probably **basic type family Cheloniidae** (5: 6): Scholl (2024), cf. Brophy et al. (2006), Hennigan 2014a). The 2 subfamilies and 4 of the 5 extant genera are connected by hybridization, see the figure below. – Further studies must show if the basic type includes the monotypic family Dermochelyidae and thus can be extended to the whole superfamily Chelonioidea.

Caretta caretta × *Chelonia mydas* (→ *Caronia*) **ISF Carettinae × Cheloniinae** (nat. hyb.)
Karl et al. 1995, Kamezaki et al. 1996, Brophy et al. 2006

Caretta caretta × *Eretmochelys imbricata* **ISF Carettinae × Cheloniinae** (nat. hyb.)
Garman 1888 (!), Kamezaki 1983, Conceicao et al. 1990, Witzell & Schmid 2003,
Brophy et al. 2006, Arantes et al. 2020

Caretta caretta × *Lepidochelys kempii*, *olivacea* **Carettinae** (nat. hyb.) Karl et al. 1995,
Barber et al. 2003, Brophy et al. 2006

Chelonia mydas × *Eretmochelys imbricata* **Cheloniinae** (nat. hyb.) Wood et al. 1983, Karl
et al. 1995, Buden & Edward 2001, Kawata 2003, Seminoff et al. 2003



Cheloniidae: hybrids in the phylogeny of Lynch & Parham (2003) *PaleoBios*. 23 (3), 21–3516) and Parham & Pyenson (2010) <https://doi.org/10.1666/2F09-077R.1>, from en.wikipedia (2026, CC BY SA 4.0).

References on Cheloniidae:

- Arantes LS et al. (2020) Genomic evidence of recent hybridization between sea turtles at Abrolhos Archipelago and its association to low reproductive output. *Sci. Rep.* 10, 12847. <https://www.nature.com/articles/s41598-020-69613-8?fromPaywallRec=false>
- Barber RC et al. (2003) Natural hybridization between a Kemp's ridley (*Lepidochelys kempii*) and loggerhead sea turtle (*Caretta caretta*) confirmed by molecular analysis. *Chelonian Conservation and Biology* 4, 701–704.
- Brophy TR, Frair W & Clark D (2006) A review of interspecific hybridization in the order Testudines. p. 17 in Sanders R (ed.) *Proc. Fifth Int. Conf. BSG Group. Occas. Papers BSG Study Group*.
- Conceicao MB, Levy JA, Martins LF & Marcovaldi MA (1990) Electrophoretic characterization of a hybrid between *Eretmochelys imbricata* and *Caretta caretta* (Cheloniidae). *Comp. Biochem. Physiol. B* 97, 275–278.
- Garman S (1888) Reptiles and batrachians from the Caymans and the Bahamas. *Bull Essex Inst* 20, 1–13.
- Kamezaki N (1983) The possibility of hybridization between the loggerhead turtle, *Caretta caretta*, and the hawksbill turtle, *Eretmochelys imbricata*, in specimens hatched from eggs collected in Chita Peninsula. *Japanese J. Herpetology* 10, 52–53.
- Kamezaki N, Nakajima Y & Ishii M (1996) Rapid communication: Hybrids between *Caretta caretta* × *Chelonia mydas* from the Horinoichi beach, Miyazaki. *Umigame Newsletter* 30, 7–9.
- Karl SA, Bowen BW & Avise JC (1995) Hybridization among the ancient mariners: Characterization of marine turtle hybrids with molecular genetic assays. *J. Heredity* 86 (4), 262–268.

<http://zebra.biol.sc.edu/~vogt/pdf/turtles/Hybridization%20%28Karl%20Bowen%20Avis%20JHeredity%201995%29.pdf>

Scholl B (2024) Meeresschildkröten – ein Grundtyp, der der Evolution trotzte?

<https://www.genesisnet.info/index.php?News=345>

Seminoff JA et al. (2003) Hybridization of the green turtle (*Chelonia mydas*) and hawksbill turtle (*Eretmochelys imbricata*) in the Pacific Ocean: Indication of an absence of gender bias in the directionality of crosses. Bulletin of Marine Science 73, 643–652.

<http://hawksbill.org/sitebuildercontent/sitebuilderfiles/Seminoffetalhawksbillgreenhybrid.pdf>

Witzell WN & Schmid JR (2003) Multiple recaptures of a hybrid hawksbill-loggerhead turtle in Ten Thousand Islands, southwest Florida. Herpetological Review 34, 323–325.

Wood JR, Wood FE & Critchley K (1983) Hybridization of *Chelonia mydas* and *Eretmochelys imbricatus*. Copeia 1983, 839–842.

Testudines: Chelydridae 2: 40 + 7 extinct genera (suborder Cryptodira, superfamily Chelydroidea)

snapping turtles = Alligatorschildkröten

Chelydra, *Macrochelys*.

Hennigan (2014a) proposes the family as a preliminary created kind.

Testudines: Dermatemydidae 1: 1 (suborder Cryptodira, superfamily Chelydroidea)

hickatee = Tobascoschildkröte

Dermatemys 1 mawii.

Hennigan (2014a) proposes the family as preliminary created kind.

Testudines: Dermochelyidae 1: 1 (suborder Cryptodira, superfamily Chelonoidea)

leatherback sea turtle = Lederschildkröte

Dermochelys coriacea.

Possibly part of basic type Cheloniidae (see above).

Testudines: Emydidae 12: 53 + extinct taxa. 8 IG (suborder Cryptodira, superfamily Testudonoidea)

emydids, pond turtles = Neuwelt-Sumpfschildkröten

Related to Testudinidae.

2 subfamilies:

Emydinae 6: 13 *Actinemys marmorata*, *pallida*, *Clemmys* 1 *guttata*, *Emydoidea blandingii*, *Emys* 2 *orbicularis*, *triacris*, *Glyptemys* 2 *insculpta*, *muhlenbergii*, *Terrapene* 5.

Deirochelyinae 6: *Chrysemys dorsalis*, *picta*, *Deirochelys* 1, *Graptemys* 14, *Malaclemys* 1, *Pseudemys* 8, *Trachemys* 14.

Possibly **basic type Emydidae** (12: 53). In subfamily Emydinae as well as in subfamily Deirochelyinae the main taxa (with the exception of *Deirochelys*) are connected by hybridization, see the figure below. Since the differences between the 2 subfamilies are not very large, they possibly belong to the same basic type. – Hennigan (2014a) proposes the whole family as preliminary created kind, see also Brophy et al. 2006.

IS:

Graptemys geographica × *G. ouachitensis ouachitensis* **IS** Vogt 1978 according to Fritz 195
Graptemys geographica × *G. pseudogeographica pseudogeographica* **IS** Vogt 1978 according to Fritz 1995

Graptemys oculifera × *G. barbouri* **IS** Fritz 1995

Terrapene carolina major × *T. ornata luteola* **IS** Fritz 1995

Trachemys nebulosa taylori × *T. scripta elegans* **IS** Fritz 1995

Trachemys ornata callirostris/cataspila × *T. scripta elegans* **IS** Fritz 1995

Trachemys scripta scripta × *T. terrapen-Komplex* **IS** Fritz 1995

Trachemys stejnegeri viciua × *T. decorata* **IS** Fritz 1995

Actinemys (“*Emys*”) *marmorata* × *Emydoidea blandingii* **Emydinae** Brophy et al. 2006

Actinemys (“*Emys*”) *marmorata* × *Emys orbicularis* **Emydinae** Brophy et al. 2006 not mentioned in reptile database 2026

Chrysemys × *Pseudemys* **Deirochelyinae** see Brophy et al. 2006, undocumented

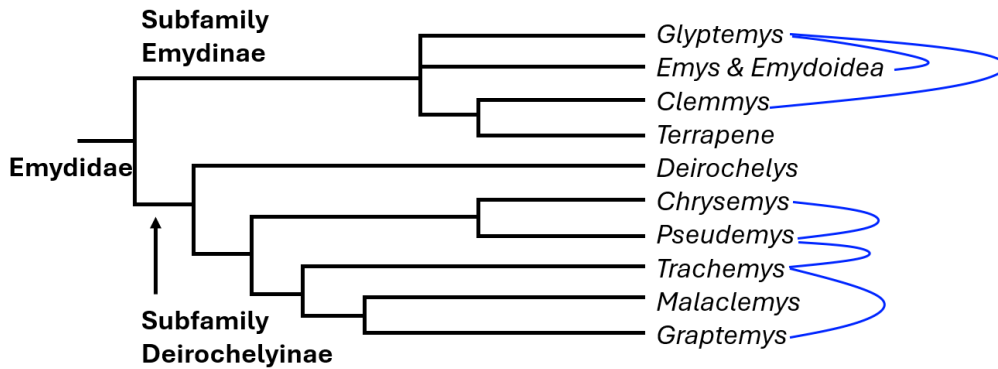
Clemmys guttata × *Glyptemys muhlenbergii* **Emydinae** see Brophy et al. 2006

Emydoidea (“*Emys*”) *blandingii* × *Glyptemys* (“*Clemmys*”) *insculpta* **Emydinae** Harding & Davis 1999, see Brophy et al. 2006, reptile database 2026

Emys orbicularis × *Glyptemys insculpta* **Emydinae** see Brophy et al. 2006, undocumented, not mentioned in reptile database 2026

Graptemys ouachitensis × *Trachemys scripta* **Deirochelyinae** see Brophy et al. 2006, Gooley et al. 2016 (*G. geographica* × *T. scripta*), reptile database 2026

Pseudemys × *Trachemys scripta* **Deirochelyinae** see Brophy et al. 2006



Emydidae: hybrids in the phylogeny of Guillon (2012, Fig. 2. doi: 10.1163/18759866-08103002; own sketch).

References on Emydidae:

- Brophy TR, Frair W & Clark D (2006) A review of interspecific hybridization in the order Testudines. p. 17 in Sanders R (ed.) Proc. Fifth Int. Conf. BSG Group. Occas. Papers BSG Study Group.
- Gooley A et al. (2016) *Trachemys scripta elegans* (Red-eared Slider) and *Graptemys geographica* (Northern Map Turtle) Hybridization. Herpetological Review 47 (4), 657–659.
- Harding JH & Davis SC (1999) *Clemmys insculpta* (wood turtle) and *Emydoidea blandingii* (Blanding's turtle). Hybridization. Herpetol. Rev. 30 (4), 225–226.

Testudines: Geoemydidae (= Bataguridae) 23: 70. 10 IG (suborder Cryptodira, superfamily Testudonoidea)

leaf turtles = **Altwelt-Sumpfschildkröten**

en.wikipedia 2025 + de. wikipedia 2025: 2 subfamilies (no longer Batagurinae + Geoemydidae, instead now: Geoemydinae + Rhinoclemmydinae).

Geoemydinae 22: *Batagur*, *Chinemys*, *Callagur*^o (= *Batagur* p.p.), *Geoclemys*, *Hardella*, *Hieremys*, *Kachuga*^o (= *Batagur* p.p.), *Malayemys*, *Morenia*, *Ocadia*, *Orlitia*, *Pangshura*: 4, *Cathaiemys*, *Cuora*, *Cyclemys*, *Geoemyda*, *Heosemys*, *Leucocephalon*, *Mauremys* (incl. *Ocadia*), *Melanochelys*, *Notochelys*, *Pyxidea* (= *Cuora* p.p.), *Sacalia*, *Siebenrockiella*, *Vijayachelys*.

Rhinoclemmydinae 1 (America): *Rhinoclemmys* 9.

Probably **basic type Geoemydidae** (23: 70), cf. Brophy et al. (2006). 10 IG, the 2 subfamilies are connected by hybridization (cf. the cladogram of Guillon et al. 2012, Fig. 2d. doi: 10.1163/18759866-08103002). – en.wikipedia 2025: Most fossil and molecular data support their close relationship to the family Testudinidae. – Hennigan (2014a) proposes the family as preliminary basic kind.

IS: Brophy et al. (2006): *Mauremys* ca. 9 IS.

Rhinoclemmys punctulata punctulata × *R. diademata* Fritz 1995

Chinemys reevesii × *Cuora amboinensis* **Geoemydinae** Galgon & Fritz 2002 (capt. hyb.)

Chinemys reevesii × *Mauremys japonica, mutica* **Geoemydinae** Schilde et al. 2004, Brophy et al. 2006, http://www.enotes.com/topic/Yellow_pond_turtle 2012 (*C. reevesii* × *M. mutica* → *Mauremys pritchardi*, **HY** = hybridogeneous origin, fertile)

Cuora × *Geoemyda* **Geoemydinae** see Schilde et al. 2004, p. 123, Brophy et al. 2006, Otani et al. 1995 (*C. flavomarginata* × *G. japonica*)

Cuora × *Malayemys subtrijuga* **Geoemydinae** Brophy et al. 2006

Cuora × *Mauremys* **Geoemydinae** (*C. amboinensis* × *M. annamensis* Fritz & Mendau 2002, Schilde et al. 2004, Brophy et al. 2006; *C. trifasciata* × *M. mutica* (→ *Mauremys* × *iversonii*) Schilde et al. 2004, http://en.wikipedia.org/wiki/Fujian_pond_turtle_2012; *C. trifasciata* × *M. sinensis* (→ *Ocadia* × *philippeni*) Stuart & Parham 2007, http://en.wikipedia.org/wiki/Philippen%27s_striped_turtle, <https://www.mindat.org/taxon-2443246.html>)

Cuora × *Pyxidea* (= *Cuora* p.p.) **Geoemydinae** Schilde et al. 2004 (*C. galbinifrons* × *C. mouhotii*); http://en.wikipedia.org/wiki/Asian_box_turtle 2012 (*C. cyclornata* × *C. mouhotii* → *Cuora* „serrata“)

Cuora trifasciata × *Sacalia quadriocellata* (→ *Sacalia pseudocellata*) **Geoemydinae** Brophy et al. 2006, Stuart & Parham 2007

Cyclemys shanensis × *Mauremys* (= *Ocadia*°) *sinensis* **Geoemydinae** Schilde et al. 2004 (capt. hyb.), Brophy et al. 2006

Heosemys grandis × *Mauremys* **Geoemydinae** see Brophy et al. 2006

Mauremys ammanensis × *Mauremys* (= *Ocadia*°) *sinensis* **IS Geoemydinae** (→ *Ocadia*° *glyphistoma*) http://wn.com/Ocadia_glyphistoma

Mauremys × *Rhinoclemmys pulcherrima* **ISF Geoemydinae** × **Rhinoclemmytidae** Brophy et al. 2006

Mauremys × *Sacalia* **Geoemydinae** Buskirk et al. 2005, Brophy et al. 2006

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Hybrid

Spinks PQ, Shaffer HB, Iverson JB & McCord WP (2004) Phylogenetic hypotheses for the turtle family Geoemydidae. Mol. Phylogenetics and Evolution 32 (1), 164–182.

<http://www.scribd.com/doc/72916933/Phylogenetic-Hypotheses-for-the-Turtle-Family-Geoemydidae>

Stuart BL & Parham JF (2007) Recent hybrid origin of three rare Chinese turtles. Conservation Genetics 8 (1), 169–175.

Testudines: Kinosternidae 4: 25. 1 IG (suborder Cryptodira, superfamily Chelydroidea)

mud turtles = Schlammschildkröten

2 subfamilies:

Kinosterninae 2: 22 *Kinosternon* 16, *Sternotherus* 6.

Staurotypinae 2: 3 *Claudius* 1, *Staurotypus* 2.

The 2 genera of subfamily **Kinosterninae** (2: 22) belong to the same basic type. – Hennigan (2014a) proposes the family as preliminary created kind.

IS:

Kinosternon baurii × *K. subrubrum hippocrepis* **IS** died as hatchling embryos Fritz 1995

Kinosternon depressum × *K. minor peltifer* **IS** Fritz 1995

Kinosternon flavescens × *K. subrubrum* **IS** Fritz 1995

Kinosternon subrubum × *Sternotherus odoratus* **Kinosterninae** Brophy et al. 2006,

<http://www.facebook.com/media/set/?set=a.168887903132332.33596.124918807529242&type=3>

Testudines: Pelomedusidae 2: 27 (suborder Cryptodira, superfamily Pelomedusoidea)

Afro-American sideneck turtles = Pelomedusenschildkröten

Pelomedusa, *Pelusios*.

Hennigan (2014a) proposes the family as preliminary created kind.

Testudines: Platysternidae 1: 1 (suborder Cryptodira, superfamily Testudonoidea)

big-headed turtle = Großkopfschildkröte

Platysternon 1 *megacephalum*.

Hennigan (2014a) proposes the family as preliminary created kind.

Testudines: Podocnemididae 3: 8 + extinct taxa (suborder Pleurodira, superfamily Pelomedusoidea)

Madagascan big-headed and American sideneck river turtles = Arrauschildkröten-Verwandte

Erymnochelys 1, *Peltocephalus* 1, *Podocnemis* 6.

Hennigan (2014a) proposes the family as preliminary created kind.

Testudines: Testudinidae 16: 59 + many extinct genera. 2 IG (suborder Cryptodira, superfamily Testudinoidea)

tortoises = Landschildkröten

Closely related to Emydidae.

Most authors do not subdivide the family. From a molecular view 3 clades can be distinguished, see the figures below:

1. Basal clade 2: 8 *Gopherus* 6 and *Manouria* 2.
2. Eurasian/Mediterranean clade 3: 9 *Indotestudo* 3, *Malacochersus* 1 and *Testudo* 5.
3. the African/Global clade with the rest 11: 47.

Aldabrachelys 1, *Astrochelys* 2, *Centrochelys* 1, *Chelonoidis* 16, *Chersina* 1, *Geochelone* 2, *Gopherus* 6, *Homopus* 5, *Indotestudo* 3, *Kinixys* 8, *Malacochersus* 1, *Manouria* 2, *Psammobates* 3, *Pyxis* 2, *Stigmochelys* 1, *Testudo* 5 (incl. *Agrionemys*°).

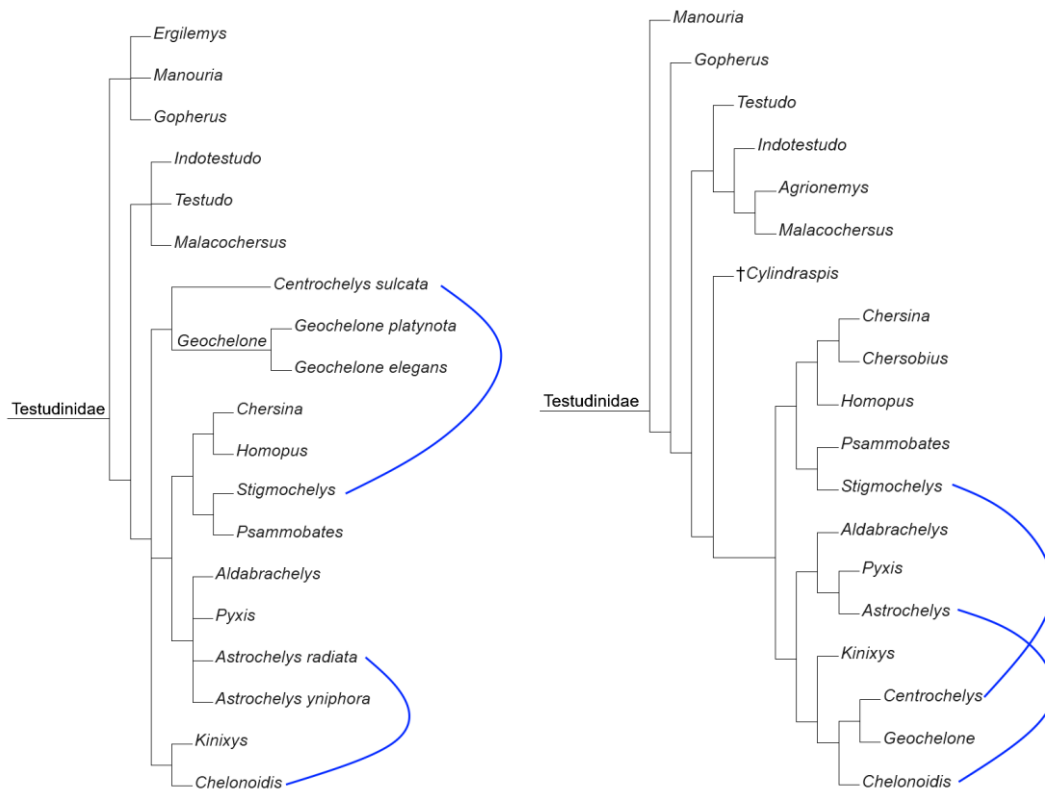
Probably **basic type family Testudinidae** (16: 59), as for the extant taxa. The genera of the African/Global clade as the largest clade (11: 47) are connected by hybridization, see the figures below. No hybrids are known connecting the 2 other clades (the basal clade *Gopherus/Manouria* and the Eurasian/Mediterranean clade), but these clades are closely related. – Hennigan (2014a) also proposes the whole family as preliminary basic kind.

Astrochelys (“*Geochelone*”) *radiata* × *Chelonoidis* (“*Geochelone*”) *carbonaria* Fritz 1995
Centrochelys (= *Geochelys*°) *sulcata* × *Stigmochelys* (= *Geochelys*°) *pardalis*, called “leocata”
= “*sulcata* tortoise × *leopard* tortoise”

<https://www.instagram.com/p/CTpFcbljuUx/> and many other entries in the internet, even several videos, e.g.

https://www.youtube.com/watch?v=GbmK7n5_UZY

Testudo hermanni boettgeri × *Agrionemys*° (= *Testudo*) *horsfieldii* IS Fritz 1995



Testudinidae: hybridization in the phylogeny of Le M et al. (2006, p. 525)

<https://doi.org/10.1016%2Fj.ympev.2006.03.003> (left) and in the phylogeny of Kehlmaier et al. (2021) doi:10.1038/s41598-021-82299-w (right), both from en.wikipedia (2026, CC BY SA 4.0).

Testudines: Trionychidae 13: 34 + extinct taxa. 1 IG (suborder Cryptodira superfamily Trionychoidea)

softshell turtles = Weichschildkröten

2 extant subfamilies:

Cyclanorbinae 3, Trionychinae 10.

Hennigan (2014a) proposes the family as preliminary created kind together with the Carettochelidae, the other family of superfamily Trionychoidea.

IS: Fritz 1995: *Apalone spinifera ater* × *A. spinifera emoryi*.

Palea steindachneri × *Pelodiscus sinensis* **Trionychinae** Zhou et Li 2013, Ma et al. (art. hyb.), the 2 genera are closely related

References:

Zhou T & Li P (2013) Chinese hybrid turtles and nomenclature. J. Snake 25, 402–406.

Ma X et al. (2025) First successful artificial distant hybridization of softshell turtle between *Palea steindachneri* and *Pelodiscus sinensis*. Aquaculture 602.

<https://doi.org/10.1016/j.aquaculture.2025.742329>