



EUROPEAN ASSOCIATION OF ZOOS AND AQUARIA

TAG Reports 2023

ANNEX – TAG PUBLICATIONS

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AMPHIBIAN

Garcia, G., Marquis, O. and Tapley, B. (2023). *Vanishing jewels*. Zooquaria, 119: 18–19

Graves, A.E., Dias, J.E. and Michaels, C.J. (2023). *Effects of Background Color on Stress-Linked Behavior in the Critically Endangered Lake Oku Clawed Frog (Xenopus longipes)*. Journal of Zoological and Botanical Gardens, 4(1): 99–107

Köhler, J. et al. (2023). *Longevity in salamandrid newts – a rule, not an exception? Verified cases of Japanese Fire-bellied Newts (Cynops pyrrhogaster) reaching a lifespan of more than 40 years*. Revue suisse de Zoologie, 130(1): 121–124

Luedtke, J.A. et al. (2023). *Ongoing declines for the world's amphibians in the face of emerging threats*. Nature, 622: 308–314

Luong, A.M. et al. (2023). *Two new species of Leptobranchella Smith 1925 (Amphibia: Megophryidae) from Cao Bang Province, Vietnam*. Zootaxa, 5369(3): 301–335

Pham, A.V. et al. (2023). *New records and potential distribution of Bufo luchunnicus (Yang & Rao, 2008) in Vietnam*. Amphibia-Reptilia DOI:10.1163/15685381-bja10162

Mannings, E., Tapley, B. and Michaels, C.J. (2023). *Activity budgets, responses to disturbance and novel behaviours in captive mountain chicken frogs (Leptodactylus fallax)*. Herpetological Journal, 33: 43–54

Naveen, R.S. et al. (2023). *A new species of Bufoides Pillai and Yazdani 1973 (Amphibia:*

Bufo family) from Mizoram, Northeast India and the delimitation of the distribution range of *Bufo megalayanus* (Yazdani & Chanda 1971) to the Khasi hills, Meghalaya. *Biodiversitas*, 24: 4617–4627

Ninh, H.T. et al. (2023). A New Species of *Vietnamophryne* (Anura: Microhylidae) from Northeastern Vietnam. *Zootaxa*, 5374(4): 505–518

Pham, A.V. et al. (2023). The herpetofauna of Xuan Nha Nature Reserve, Vietnam. *Amphibian & Reptile Conservation*, 16(2): 215–236

Pham, A.V. et al. (2023). A new species of *Amolops* (Anura: Ranidae) from Son La Province, northwestern Vietnam. *Raffles Bulletin of Zoology*, 71: 51–69

Phung, T.M. et al. (2023). Southbound – the southernmost record of *Tylototriton* (Amphibia, Caudata, Salamandridae) from the Central Highlands of Vietnam represents a new species. *ZooKeys*, 1168: 193–218

Rasoarimanana, T., Edmonds, D. and Marquis, O. (2023). Habitat and local climate influence the activity and abundance of Baron's *Mantella* frog (*Mantella baroni*). *Evolutionary Ecology*, 38: 205–222

Rauhaus, A. and Ziegler, T. (2023). Breeding the Mayotte *Blommersia* frog at the Cologne Zoo Aquarium. *Zoo Grapevine & International Zoo News*, Summer edition: 38–39

Tapley, B. et al. (2023). *EAZA Best Practice Guidelines for the Lake Oku Frog (*Xenopus longipes*)* – second edition. European Association of Zoos and Aquariums, Amsterdam, The Netherlands

Tapley, B. et al. (2023). Preliminary data on size and age of *Oreolalax sterlingae* (Nuguyen et al., 2013). *Herpetology Notes*, 16: 643–650

Tran, T.T. et al. (2023). Integrative taxonomic analyses reveal first country records of *Occidozyga shiwandashanensis* Chen, Peng,

Liu, Huang, Liao & Mo, 2022 and *Hylarana latouchii* (Boulenger, 1899) (Anura, Dicroglossidae, Ranidae) from Vietnam. *Biodiversity Data Journal*, 11: e109726, 1–18

Tran, T.T. et al. (2023). A new species of *Gracixalus* (Anura, Rhacophoridae) from northwestern Vietnam. *ZooKeys*, 1153: 15–35

Ziegler, T. (2023). "Die Amphibien und Reptilien eines Tieflandfeuchtwald-Schutzgebietes in Vietnam" – mehr als zwei Jahrzehnte danach. *Elaphe*, 6: 36–51

Ziegler, T. (2023). The IUCN/SSC CPSG's One Plan Approach and the role of progressive zoos in conservation: case studies from herpetology. Proceedings of the 14th national congress of the Italian Society for Herpetology, Torino, 195–222

Ziegler, T. (2023). Vietnamazing – die EAZA-Artenschutz-Kampagne 2024–2025. *Elaphe*, 6: 12–23

Ziegler, T. et al. (2023). Amphibian focus in the "Vietnamazing" EAZA Conservation Campaign, 2024–2025. *Amphibian Ark Newsletter*, 64: 7–9

REPTILE

v.d. Burg, M.P. et al. (2023). An integrative approach to assess non-native iguana presence on Saba and Montserrat: are we losing all native Iguana populations in the Lesser Antilles? *Conservation Biology*, 26(1): 1–13

Chmelař J. et al. (2023). Protecting isolated reptile populations outside their main area of distribution: a predictive model of the Dice snake, *Natrix tessellata*, distribution in the Czech Republic. *Biodiversity Data Journal*, 11: e114790.

David, P. et al. (2023). *Coluber korros* Lesson, 1831 and *Coluber korros* Schlegel, 1837 (Reptilia: Squamata: Colubridae): there is a korros too many in the family. *Zootaxa*, 5231(3): 331–339

Do, D. T. et al. (2023). *A new species of Cyrtodactylus (Squamata: Gekkonidae) from Phu Yen Province, Vietnam*. *Zootaxa*, 5271(3): 503–524

Do, D. T. et al. (2023). *New records of poorly known kukri snakes from southern Vietnam including the proof of the first living individual of Oligodon moricei (Squamata: Colubridae)*. *Russian Journal of Herpetology*, 30(2): 72–78

Fischer D. et al. (2023). *Population status of the European green lizard (Lacerta viridis) in the Prague Zoo area in 2021 and 2022 and an updated management proposal for its long-term conservation*. *Gazella (Praha)*, 49: 134–181

Ginal, P. et al. (2023). *Threatened turtles and tortoises (Testudines) in zoos: A ZIMS database analysis for improved One Plan Approach to Conservation actions*. *Salamandra*, 59(3): 262–274

Goetz, M. et al. (2023). *EAZA Best Practice Guidelines for the Lesser Antillean iguana (Iguana delicatissima) – 1st edition*. European Association of Zoos and Aquariums, Amsterdam, The Netherlands

Ha, N. V. et al. (2023). *First record of Opisthotropis durandi Teynié, Lottier, David, Nguyen & Vogel, 2014 (Squamata: Natricidae) From Vietnam*. *Academia Journal of Biology*, 45(2): 1–7

Honigs, S. and Juschka, M. (2023). *111 Reptilien die täglich unsere Welt verbessern*. Emons-Verlag, Köln, 240 Seiten

Ihlow, F. et al. (2023). *Molecular differentiation and conservation of the Indochinese box turtles Cuora galbinifrons, Cuora bourreti, and Cuora picturata*. *Salamandra*, 59(4): 336–346

Kane, D. et al. (2023). *Effects of different heat and light sources on the behaviour of captive reptiles*. *The Herpetological Bulletin*, 166: 1–9

Kane, D. et al. (2023). *A new species of the genus Rhabdophis Fitzinger, 1843 (Squamata: Colubridae) from the Hoang Lien range, north-west Vietnam*. *Zootaxa*, 5343: 101–125

Luu, V. Q. et al. (2023). *A new species of Hemiphyllodactylus (Squamata, Gekkonidae) from Ha Giang Province, Vietnam*. *ZooKeys*, 1167: 353–382

Mi, C. et al. (2023). *Global protected areas as refuges for amphibians and reptiles under climate change*. *Nature Communications*, 14: 1389

Mobaraki, A. et al. (2023). *Last chance to see? Iran and India as strongholds for the Mugger Crocodile (Crocodylus palustris)*. *Salamandra*, 59(4): 327–335

Ngo, H. N. et al. (2023). *Do not leave understudied species behind: Ecological adaptations, demography, and threat analysis of an endemic Gekko species in northern Vietnam for conservation purposes*. *Salamandra*, 59(3): 207–216

Ngo, H. N. et al. (2023). *Extraordinary diversity among allopatric species in the genus Goniurosaurus (Squamata: Eublepharidae): understanding niche evolution and the need of conservation measures*. *Biodiversity and Conservation*, 32: 1549–1571

Ngo, H. T. et al. (2023). *The discovery of two new species in the Cyrtodactylus irregularis group highlights that hidden diversity remains in the largest clade of the mega-diverse genus Cyrtodactylus*. *European Journal of Taxonomy*, 875: 70–100

Ngo, H. T. et al. (2023). *Genetic Diversity of the Critically Endangered Big-Headed Turtle (Platysternon megacephalum) Based on Wild and Traded Samples: Implications for Conservation*. *Diversity*, 15: 958

Ngo, H. T. et al. (2023). *Molecular assessment of pitviper populations (genus Trimeresurus) in Laos and Vietnam reveals new country record and overlooked diversity*.

Vietnam Journal of Biotechnology, 20(4): 589–598

Pham, A. V. et al. (2023). *The herpetofauna of Xuan Nha Nature Reserve, Vietnam*. Amphibian & Reptile Conservation, 16(2): 215–236

Pham, A. V. et al. (2023). *Achalinus quangi*, a new odd-scaled snake species from Vietnam. Zootaxa, 5270(1): 048–066

Pinto, B. J. et al. (2023). *It's a trap?! Escape from an ancient, ancestral sex chromosome system and implication of Foxl2 as the putative primary sex-determining gene in a lizard (Anguimorpha; Shinisauridae)*. Evolution, 78(2): 355–363

RAZ, T. et al. (2023). *Diversity gradients of terrestrial vertebrates – substantial variations about a common theme*. Journal of Zoology, 322: 126–140

Rech, I. et al. (2023). *Geckos in zoos: A global approach on distribution patterns of threatened geckos (Gekkota) in zoological institutions*. Journal for Nature Conservation, 75: 1–13

Rehák, I. (2023). *Looking back at the WAZA Gharial Resolution*. WAZA News, 2: 21–23

Rehák, I. and Cizelj, I. (2023). *Which lizards should we keep in zoos?* Zooquaria, 120: 18–19

Rehák I. et al. (2023). *Ex situ population of Aldabrachelys gigantea (Reptilia: Testudines) in the European Association of Zoos and Aquaria and its perspectives: Hidden extinction and how to prevent it*. Acta Societatis Zoologicae Bohemicae, 86: 139–156

Riedel, J. et al. (2023). *Variation in claw morphology among the digits of Bent-toed geckos (Cyrtodactylus: Gekkota: Gekkonidae)*. BMC Zoology, 8:19

Schwabe, R. and Ziegler, T. (2023). *Evidence of natural cannibalism in the slow worm, Anguis fragilis Linnaeus, 1758 (Squamata: Anguillidae)*. Biodiversity Journal, 14(3): 481–483

Stenger, L. et al. (2023). *Assessment of the threat status of reptile species from Vietnam - Implementation of the One Plan Approach to Conservation*. Nature Conservation, 53: 183–221

Teron, G. et al. (2023). *New locality record of Endangered Cuora mouhotii (Gray 1862) from Doimara Reserve Forest, Arunachal Pradesh, Northeast India*. Reptiles and Amphibians, 30, e18262

Ziegler, T. (2023). *“Die Amphibien und Reptilien eines Tieflandfeuchtwald-Schutzgebietes in Vietnam” – mehr als zwei Jahrzehnte danach*. Elaphe, 6: 36–51

Ziegler, T. (2023). *The IUCN/SSC CPSG's One Plan Approach and the role of progressive zoos in conservation: case studies from herpetology*. Proceedings of the 14th national congress of the Italian Society for Herpetology, Torino, 195–222

Ziegler, T. (2023). *Vietnamazing – die EAZA-Artenschutz-Kampagne 2024–2025*. Elaphe, 6: 12–23

RAPTOR

Pynnönen-Oudman, K. et al. (2023). *Raptor action plan, Protecting our most threatened raptors*. Zooquaria, 117: 12–13

Shaw, P., et al. (2024). *African savanna raptors show evidence of widespread population collapse and a growing dependence on protected areas*. Nature Ecology & Evolution, 8: 45–56

GREAT APES

Berghaenel, A. et al. (2023). *Adolescent length growth spurts in bonobos and other primates: Mind the scale*. eLife 12:RP86635

Torfs J.R.R. et al. (2023). *Visually assessed body condition shows high heritability in a pedigreed great ape population*. American Journal of Primatology, 85(10): e23540

SMALL CARNIVORES

Nummert, G. et al. (2023). *How was genetic diversity transferred with translocations from ex situ to in situ? A case study of the European mink translocation to Hiiumaa Island in Estonia*. *Zoo Biology*, 42(4): 557–566

van Leeuwen, P.M.L. et al. (2023). *A microbial tale of farming, invasion and conservation: on the gut bacteria of European and American mink in Western Europe*. *Biol Invasions*, 25: 1693–1709

ELEPHANT

YoScherer, L. et al. (2023). *The historical development of zoo elephant survivorship*. *Zoo Biology*, 42: 328–348

Schiffmann, C. et al. (2023). *A simple approach to monitor faecal particle size in the Asian elephant – a proof of concept study*. *Gajah*, 56: 30–35

Hildebrandt, T.B. and Goeritz, F. (2023). *Artificial Insemination in Elephants*. In: *Fowler's Zoo and Wild Animal Medicine Current Therapy*, 10(94): 655–660

Luke, L. et al. (2023). *Dense reconstruction of elephant trunk musculature*. *Current Biology*, 33: 4713–4720

Petneházy, Ö. et al. (2023). *3D Reconstruction of the Blood Supply in an Elephant's Forefoot Using Fused CT and MRI Sequences*. *Animals*, 13(11): 1789

EQUID

Bernátková, A. et al. (2023). *Novel observation of play behaviour between a harem holder and a bachelor group of Przewalski's horses in the wild*. *Acta Ethologica*, 10: 1–6

Bernátková, A. et al. (2023). *Social networks of reintroduced Przewalski's horses in the Great Gobi B Strictly Protected Area (Mongolia)*. *Current Zoology*, 70(2): 182–194

Monod, A. et al. (2023). *CRISPR/Cas9-Mediated Targeting of BPV-1-Transformed Primary Equine Sarcoïd Fibroblasts*. *Viruses*, 15(9): 1942

Novak, B.J. et al. (2023). *Endangered Przewalski's horse, *Equus przewalskii*, cloned from historically cryopreserved cells*. *BioRxiv preprint*.

<https://doi.org/10.1101/2023.12.20.572538>

Stejskalova, K. et al. (2023). *Twelve toll-like receptor (TLR) genes in the family Equidae – comparative genomics, selection and evolution*. *Vet. Res. Commun.*, 48: 725–741

A complete list of the TAG's publications can be found on the Equid TAG page on the EAZA Member Area.

CATTLE AND CAMELID

Schmidt, C.R. (2023). *Saisonalität von Geburten und Jugendmortalität und die Geburtszeit beim Südlichen Vikunja, *Lama v. vicugna* (Molina, 1782), in Zoos*. *Zool. Garten N.F.*, 91: 41–46

ANTELOPE AND GIRAFFID

Brown, M. B. et al. (2023). *Ranging behaviours across ecological and anthropogenic disturbance gradients: a pan-African perspective of giraffe (*Giraffa spp.*) space use*. *Proceedings of the Royal Society B*, 290(2001): 20230912

Fialkovskyi, P. et al. (2023). *Evidence of three distinct lactation stages in nursing gazelles: Implications on maternal behaviour assessment*. *Applied Animal Behaviour Science*, 258: 105814

Gašparová, K., et al. (2023). *Social development and biodiversity conservation synergies for the West African giraffe in a human-wildlife landscape*. *Environmental Conservation*, 50(4): 259–266