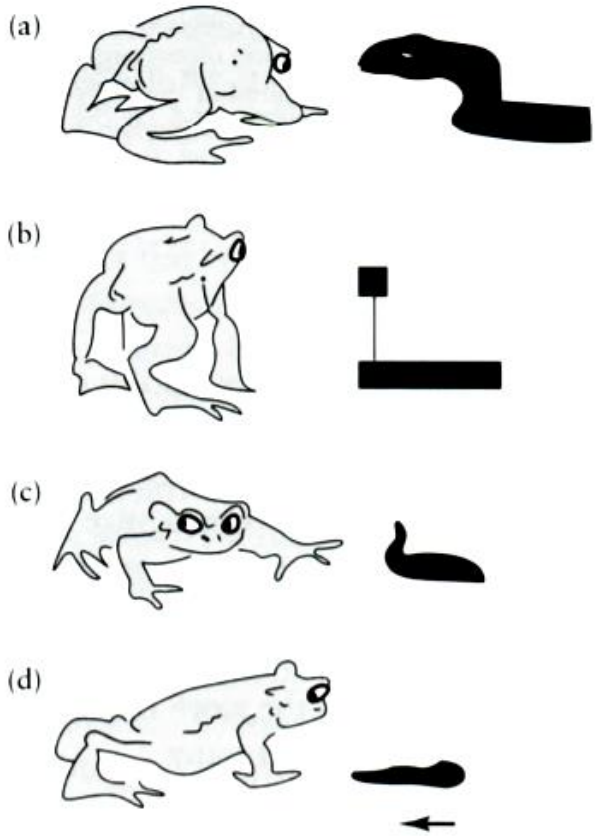
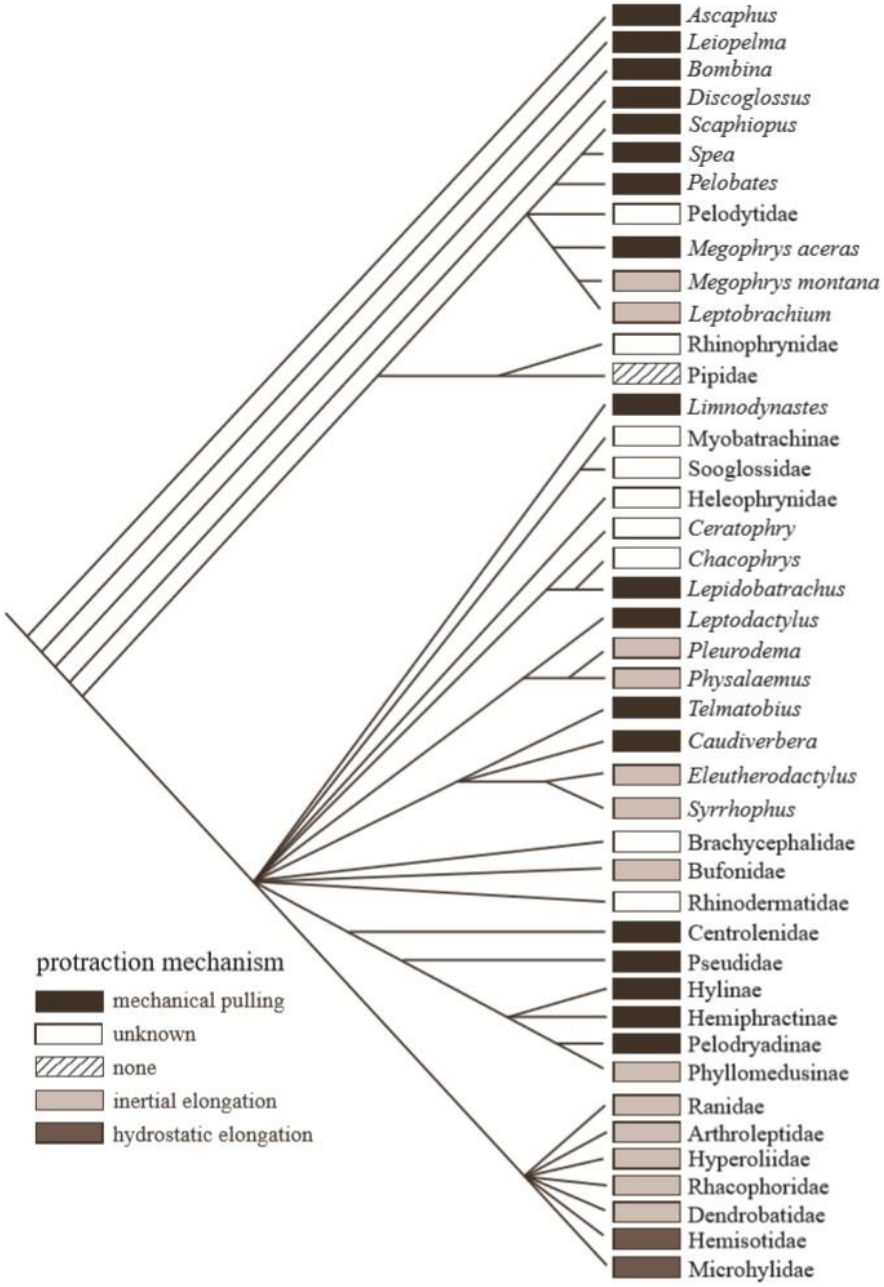
Příloha:



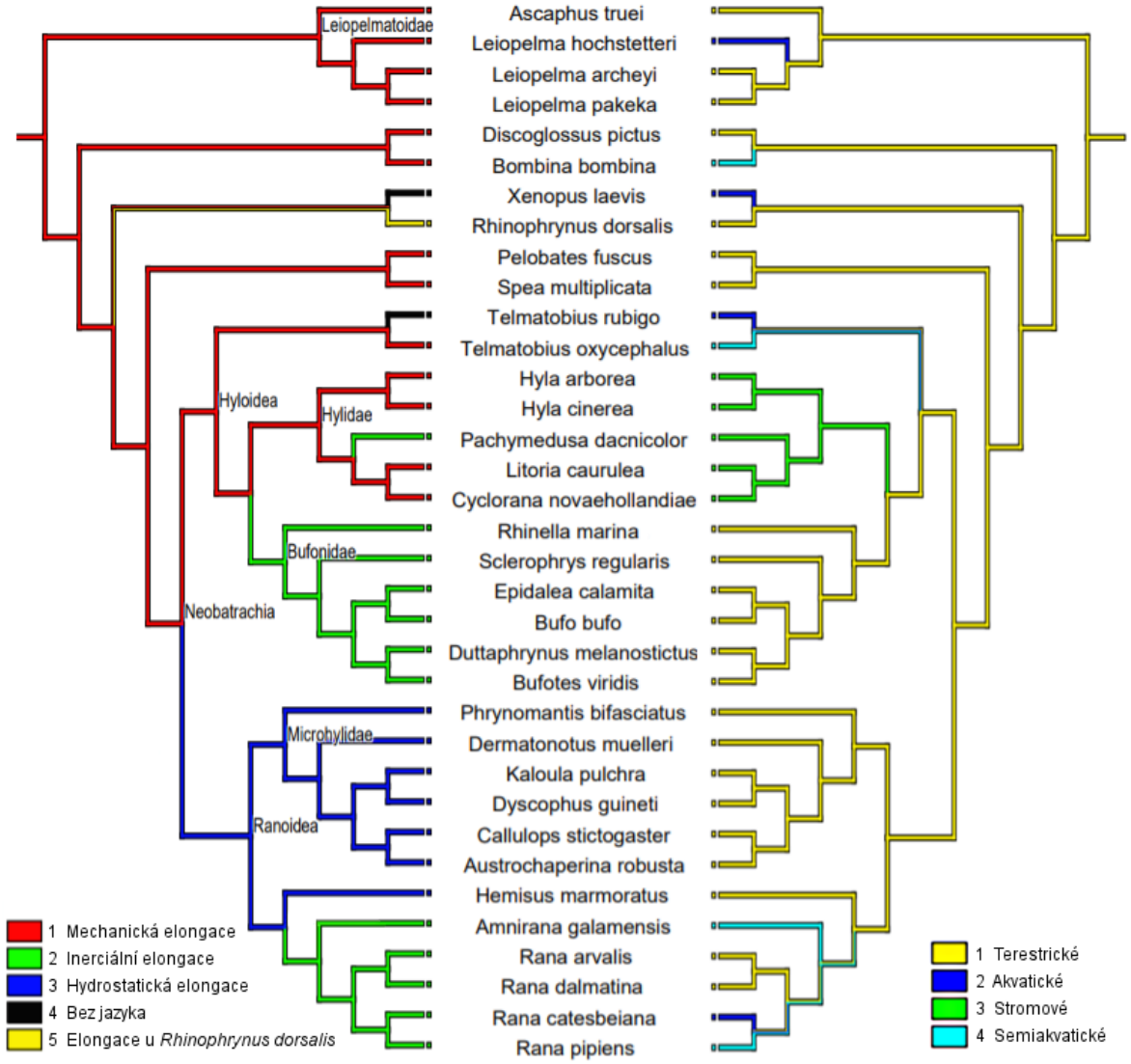
Obr.A: Znázorněné obrané chování pro vyhnutí se predátorovi u ropuchy obecné (*Bufo bufo*) vyvolané několika různými stimuly: (a) hadem, (b) maketou připomínající tvar hada a (c) pijavicí s pozvednutou přední částí. Pokud pijavice položí svou přední část na zem a začne se pohybovat, v ropuše se naopak spouští chování pro ulovení kořisti. Převzato z (Ewert, 2004).



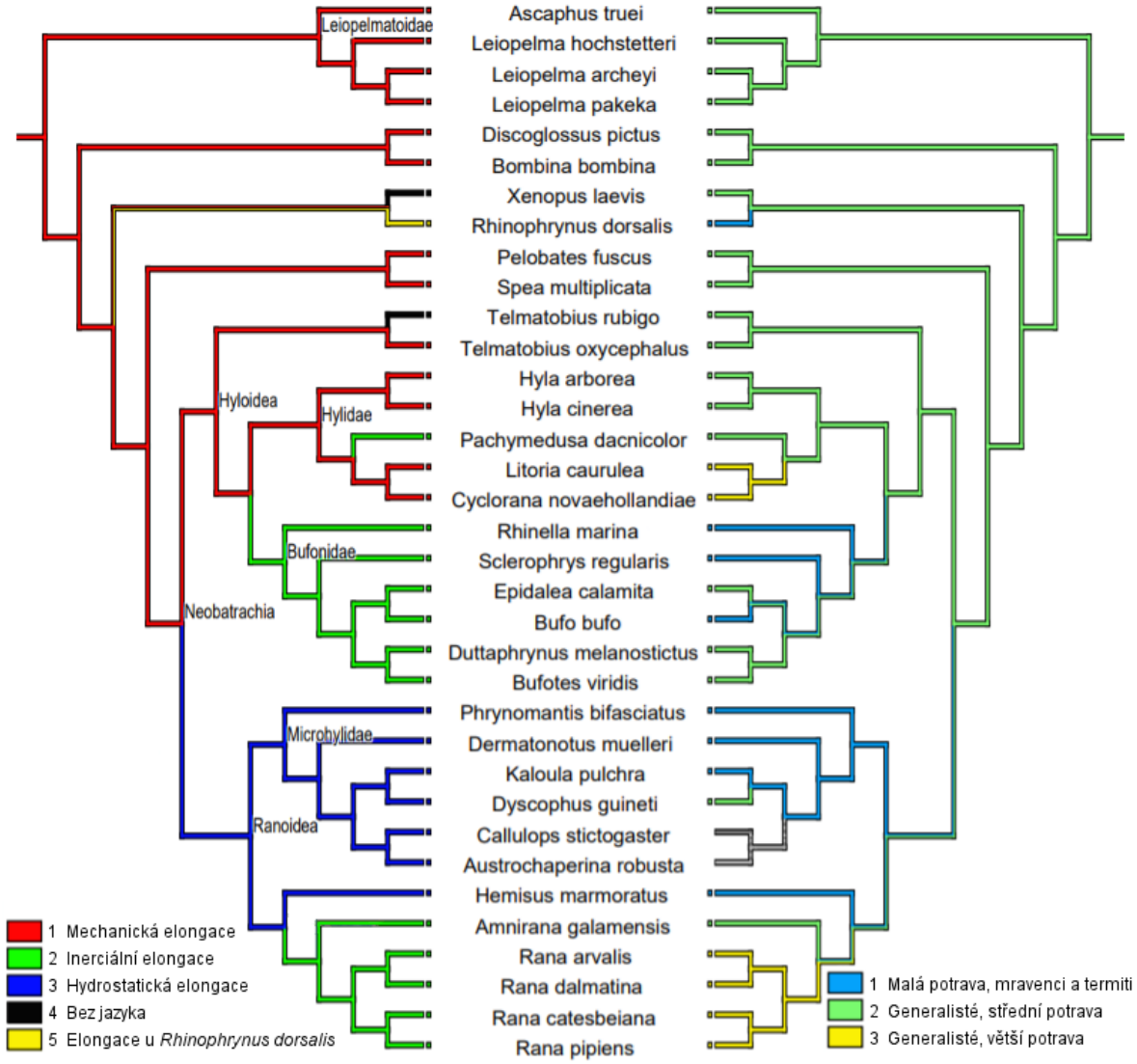
Obr.B: Kladogram znázorňující evoluci typu jazykové elongace u žab podle fylogenetické studie Ford & Cannatella, 1993. S ohledem na toto namapování bylo vysloveno několik hypotéz ohledně jazykové elongace: mechanická elongace je původní, inerciální elongace je odvozená a vznikla opakovaně nezávisle na sobě, hydrostatická elongace je odvozená a vznikla pouze jednou z elongace inerciální. Převzato z Nishikawa et al., 1999. Jak je patrné, většina fylogenetických vztahů nebyla v té době známa, což samozřejmě značně znemožňuje rekonstrukci evoluce tohoto znaku a další interpretaci.

Tab.A: Souhrnná tabulka 35 druhů zahrnutých do fylogenetického mapování. Ve sloupci (E.) jsou zaznamenány jazykové elongace: (ME) mechanická elongace, (IE) inerciální elongace, (HE) hydrostatická elongace, (IS) inertní sukce, (S) speciální elongace pro druh *Rhinophrynus dorsalis*. Písmeno (H.) stojí pro typ habitatů: (TE) terestrické, (AQ) akvatické, (AR) arboreální a (SA) semiakvatické. Sloupec (P.) zaznamenává typ potravy: (1) malá potrava s převahou mravenců či termitů, (2) generalisté s převážně středně velikým typem potravy, (3) generalisté se zastoupením i větší potravy.

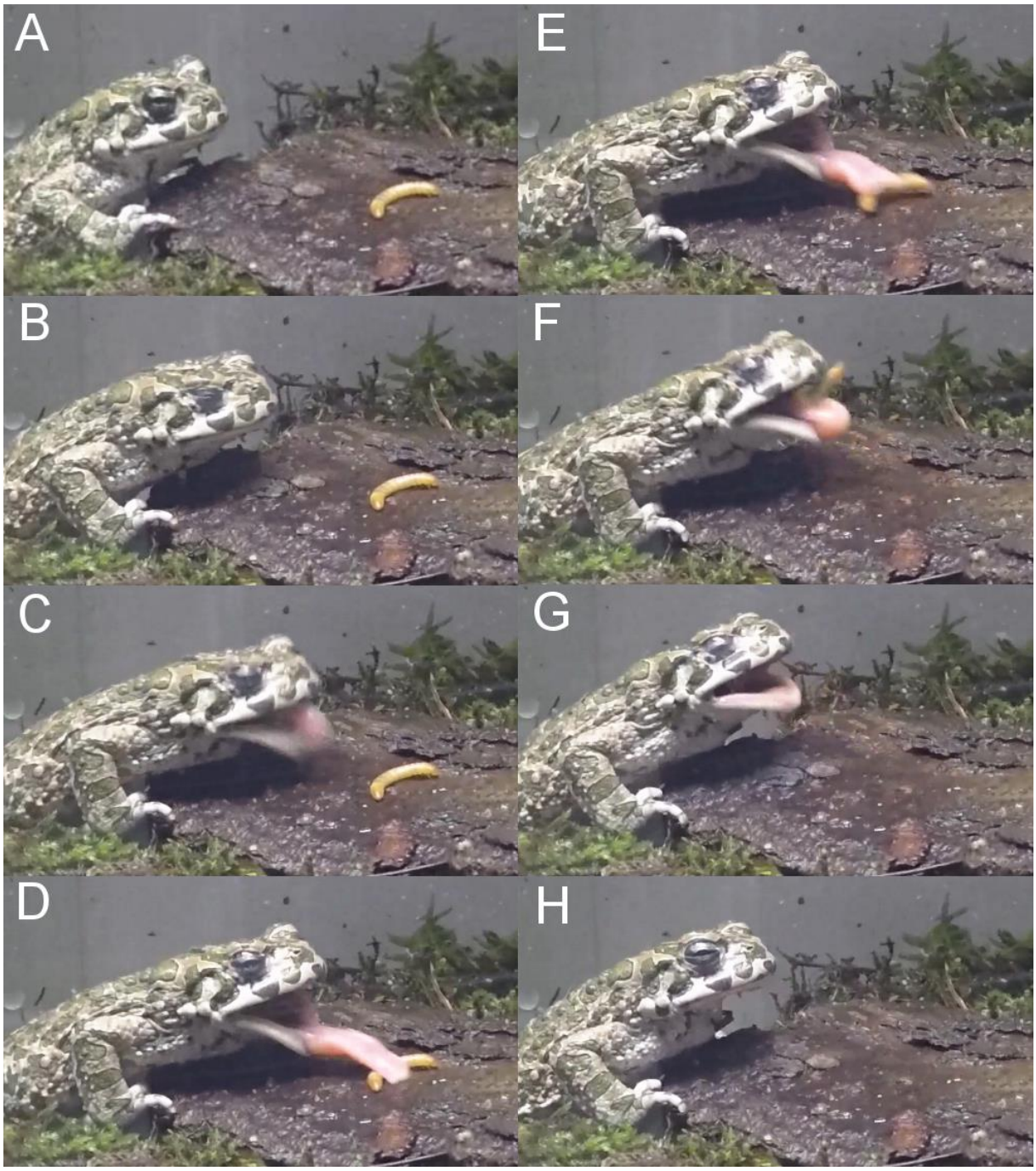
Druh	Čeleď	E.	H.	P.	Citace
Amnirana galamensis	Ranidae	IE	SA	2	Jongsma et al., 2018; Loveridge, 1942
Ascaphus truei	Ascaphidae	ME	TE	2	Nishikawa & Cannatella, 1991
Austrochaperina robusta	Microhylidae	HE	TE	?	Horton, 1982
Bombina bombina	Bombinatoridae	ME	SA	2	Dolgener et al., 2013
Bufo bufo	Bufonidae	IE	TE	1	Cadenovic et al., 2018
Bufotes viridis	Bufonidae	IE	TE	2	Mollov & Stojanova, 2016
Callulops stictogaster	Microhylidae	HE	TE	?	Burton, 1983
Cyclorana novaehollandiae	Hylidae	ME	ST	3	Valdez & Nishikawa, 1997
Dermatonotus muelleri	Microhylidae	HE	TE	1	Stănescu et al., 2016; Meyers et al., 2004
Discoglossus pictus	Alytidae	ME	TE	2	Hassine & Boix, 2014; Nishikawa & Roth, 2014; Hassine & Nouira, 2009
Duttaphrynus melanostictus	Bufonidae	IE	TE	2	Döring et al., 2017
Dyscophus guineti	Microhylidae	HE	TE	2	Brenes-Soto & Dierenfeld, 2014; Monroy & Nishikawa, 2009
Epidalea calamita	Bufonidae	IE	TE	2	Oromí et al., 2010; Boomsma & Arntzen, 1985
Hemisus marmoratus	Hemisotidae	HE	TE	1	Nishikawa et al., 1999
Hyla arborea	Hylidae	ME	AR	2	Kovács et al., 2007
Hyla cinerea	Hylidae	ME	AR	2	Deban & Nishikawa, 1992
Kaloula pulchra	Microhylidae	HE	TE	1	Meyers et al., 2004; Berry, 1965
Leiopelma archeyi	Leiopelmatidae	ME	TE	2	Reilly et al., 2015; Shaw et al., 2012
Leiopelma hochstetteri	Leiopelmatidae	ME	AQ	2	Reilly et al., 2015; Shaw et al., 2012
Leiopelma pakeka	Leiopelmatidae	ME	TE	2	Reilly et al., 2015; Shaw et al., 2012
Litoria caerulea	Hylidae	ME	AR	3	Smith et al., 2004
Pachymedusa dacnicolor	Hylidae	IE	AR	2	Wells, 2007; Gray & Nishikawa, 1995
Pelobates fuscus	Pelobatidae	ME	TE	2	Kovács & Török, 1997
Phrynomantis bifasciatus	Microhylidae	HE	TE	1	Meyers et al., 2004; Jacobsen, 1986
Xenopus laevis	Pipidae	IS	AQ	2	Anzeraey et al., 2017; Carreno & Nishikawa, 2010
Rana arvalis	Ranidae	IE	AR	3	Stojanova & Mollov, 2008; Kovács & Török, 1997
Rana catesbeiana	Ranidae	IE	AQ	3	Zhengjun et al., 2005; Ganz, 1962
Rana dalmatina	Ranidae	IE	TE	3	Guidali et al., 2009
Rana pipiens	Ranidae	IE	SA	3	Knutson et al., 2018; Anderson, 1993
Rhinella marina	Bufonidae	IE	TE	1	Nishikawa et al., 1992
Rhinophrynus dorsalis	Rhinophrynidae	S	TE	1	Trueb, 2018
Sclerophrys regularis	Bufonidae	IE	TE	1	Borkin et al., 2016; Lescure, 1983
Spea multiplicata	Scaphiopodidae	ME	TE	2	Dimmitt & Ruibal, 1980; Oreilly & Nishikawa, 1995
Telmatobius oxycephalus	Telmatobiidae	ME	SA	2	Barrionuevo, 2016
Telmatobius rubigo	Telmatobiidae	IS	AQ	2	Barrionuevo, 2016



Obr.C: Porovnání typů elongace s typem obývaného habitatu u 35 druhů žab. Přímá spojitost se zdá být pouze u krmení inerciální sukcí s absencí jazyka a trvale vodním prostředím. U ostatních typů se neprojevila výrazná korelace. Provedeno v programu Mesquite Version 3.6 (Madisson & Madisson, 2018).



Obr.D: Porovnání typů elongace s typem potravy u 35 druhů žab. Specializace na malou potravu, zastoupenou mravenci a termity, se objevuje častěji ve spojení s hydrostatickou elongací. Speciální elongace *Rhinophrynus dorsalis* může být rovněž adaptací na malou potravu. Mechanická elongace se zdá být často přítomná u generalistů s největším zastoupením středně velké potravy. U inerciální elongace se nepodařilo objevit žádnou výraznější preferenci. Provedeno v programu Mesquite Version 3.6 (Madisson & Madisson, 2018).



Obr.E: Záběry lovu ropuchy zelené (*Bufotes viridis*) zhotovené pomocí vysokorychlostní kamery v domovském teráriu. Způsob vymrštění jazyka svou rychlostí a vzdáleností spadá do kategorie inerciální elongace.

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