

Catalogue of American Amphibians and Reptiles.

Ernst, C.H. 2012. *Storeria*.

***Storeria* Baird and Girard
American Brownsnakes**

Coluber: Linnaeus 1758:216. See **Remarks**.

Storeria Baird and Girard 1853:135. Type-species, *Tropidonotus dekayi* Holbrook 1842:135 (officially so designated by the International Commission of Zoological Nomenclature [ICZN] 1962:145; see **Remarks**).

Ischnognathus Duméril 1853:468. Type-species, *Tropidonotus dekayi* Holbrook 1842:53)

Tropidoclonium: Cope 1865:190.

Hemigenius Dugès 1888:182. Type-species, *Hemigenius variabilis* Dugès 1888:182 (= *Tropidoclonium storerioides* Cope 1865:190).

Natrix: Cope 1889:391.

Tropidonotus: Duméril, Bocourt, and Mocquard 1893:750.

Thamnophis: Amaral 1929:21.

Tropidoclonion: Dunn 1931:163.

Storeia: Gray 2004:94. *Ex errore*.

• **CONTENT**. Four species are recognized: *Storeria dekayi*, *Storeria hidalgoensis*, *Storeria occipitomaculata*, and *Storeria storerioides*. See **Remarks**.

• **DEFINITION**. Snakes of the genus *Storeria* are slender, cylindrical, relatively short (max. TL 40.6 cm), live-bearing, terrestrial worm and slug predators.

Trunk vertebrae are small and elongate, with vaulted neural arches containing well developed low spines that extend posteriorly beyond the arch. The somewhat pointed hypapophyses is also directed posteriorly. Condyles and cotyles are usually round, with lateral foramina present on the cotyles. The prezygapophyseal accessory processes are well developed. A distinct haemal keel and subcentral ridges are present; and paired lateral processes occur on some caudal vertebrae. In the skull, the dentary bone is essentially not motile on the articular.

Dorsally the body is dark gray, olive gray, light brown or dark brown; juveniles are darker than most adults. The dorsum may be patterned with narrow cross bars or dark flecks. The venter ranges from gray to pink or orangish-red. The head may be darker than the body or of the same color.

The obtusely shaped head is small (length of anterior portion of skull 38.7–46.6% of the total) and distinct from the neck. The eyes are relatively large and dark. Body scales are keeled (the first row may be smooth or only weakly keeled) and pitless. They lie in 15–17 rows throughout the body, but usually only 15 rows near the tail (see individual species accounts for differences in scale row counts). Beneath are 107–148 ventrals, 34–69 subcaudals in two rows, and a divided cloacal scute (= anal plate).

Dorsal head scales include a broader than long rostral, 2 internasals, 2(1) prefrontals, 1 large medial



FIGURE 1. *Storeria dekayi texana*. Photograph by Suzanne L. Collins.



FIGURE 2. *Storeria hidalgoensis*. Photograph by Michael S. Price.



FIGURE 3. *Storeria occipitomaculata occipitomaculata*. Photograph by Suzanne L. Collins.



FIGURE 4. *Storeria storerioides*. Photograph by Erik Anderson.

frontal, 1(2) supraoculars, and 2 parietal scales. Lateral head scales are 2 (occasionally 1) nasals with the lateral naris positioned posteriorly in the first, 0–1 loreal, 2(1) preoculars, 2–3 (1–3) postoculars, 1 (2–3) + 2–3 (1–3) temporals, 6–7 (5–8) supralabials, and 7 (5–9) infralabials. Ventral head scales include 1 small mental, 4 chin shields (2 long anterior in contact, 2 shorter posterior that may be separated by small scales).

The single, short hemipenis has only been described for *S. occipitomaculata* and *S. storerioides*. It has a shallow medial sulcus spermaticus, which extends laterally from the posterior base and then straight to the apex; a flattened distal end; and 5 lateral spines, which are larger near the base, but no very enlarged spines; and small distal spines may be present which lengthen proximally.

All teeth are solid (aglyphous); no diastema is present so the teeth extend the entire length of the maxilla and dentary. Dentition consists of 13–19 maxillary teeth, 10–19 dentary teeth, and 27–35 teeth in the palato-ptyergoid complex. The most posterior maxillary teeth are enlarged in some species.

The karyotype of species reported consists of 36 chromosomes (34 macro- and 2 micro-chromosomes); females are ZW, males are ZZ (Baker et al. 1972; Gilboa 1975; Hardy 1971; Hubble 1971).

Adult females are generally longer (maximum TL 40.6 cm) and stouter than adult males (maximum TL 36.0 cm), but most individuals are 23–30 cm long. Adult females have 111–148 ventrals, 34–56 subcaudals, and shorter tails 17–30% of TL. The shorter males have 107–148 ventrals, 41–69 subcaudals, and longer tails 20–27% of body length.

• **DESCRIPTIONS.** General descriptions are in Anderson (1961), Boulenger (1893, 1896), Casas Andreu and McCoy (1979), Christman (1980, 1982), Cochran and Goin (1970), Duméril (1853), Duméril and Bibron (1854), Ernst (2002b), Ernst and Barbour (1989), Ernst and Ernst (2003), Günther (1858), Powell et al. (1998, 2012), Stuart (1948), Smith and Taylor (1950a, 1966), Trapido (1944), Wilson and Meyer (1982), and Wright and Wright (1957). Marx and Rabb (1972) described several morphological characters. Other descriptions by topic are: **vertebrae** (Auffenberg 1963; Holman 1962, 1995, 2000), **hemipenis** (Cope [1898] 1900; Trapido 1944), **karyotype** (Baker et al. 1972; Gilboa 1975; Hardy 1971; Hubble 1971), and **habitat** (Lazcano et al. 2006; Mendoza Quijano 1990; Stuart 1950, 1954, 1963).

• **ILLUSTRATIONS.** Color or black-and-white illustrations of *Storeria dekayi* and/or *S. occipitomaculata* are presented in Ballinger et al. (2010), Conant and Collins (1998), Ernst (2002b), Ernst and Barbour (1989), Ernst and Ernst (2003), and Tilley and Huheey. (2001). Ernst (2008a) and Uribe-Peña et al. (1999) presented color photographs of *S. hidalgoensis* and *S. storerioides*, respectively, and Trapido (1944) has black-and-white photographs of the heads and bodies of *S. hidalgoensis* and *S. storerioides*.

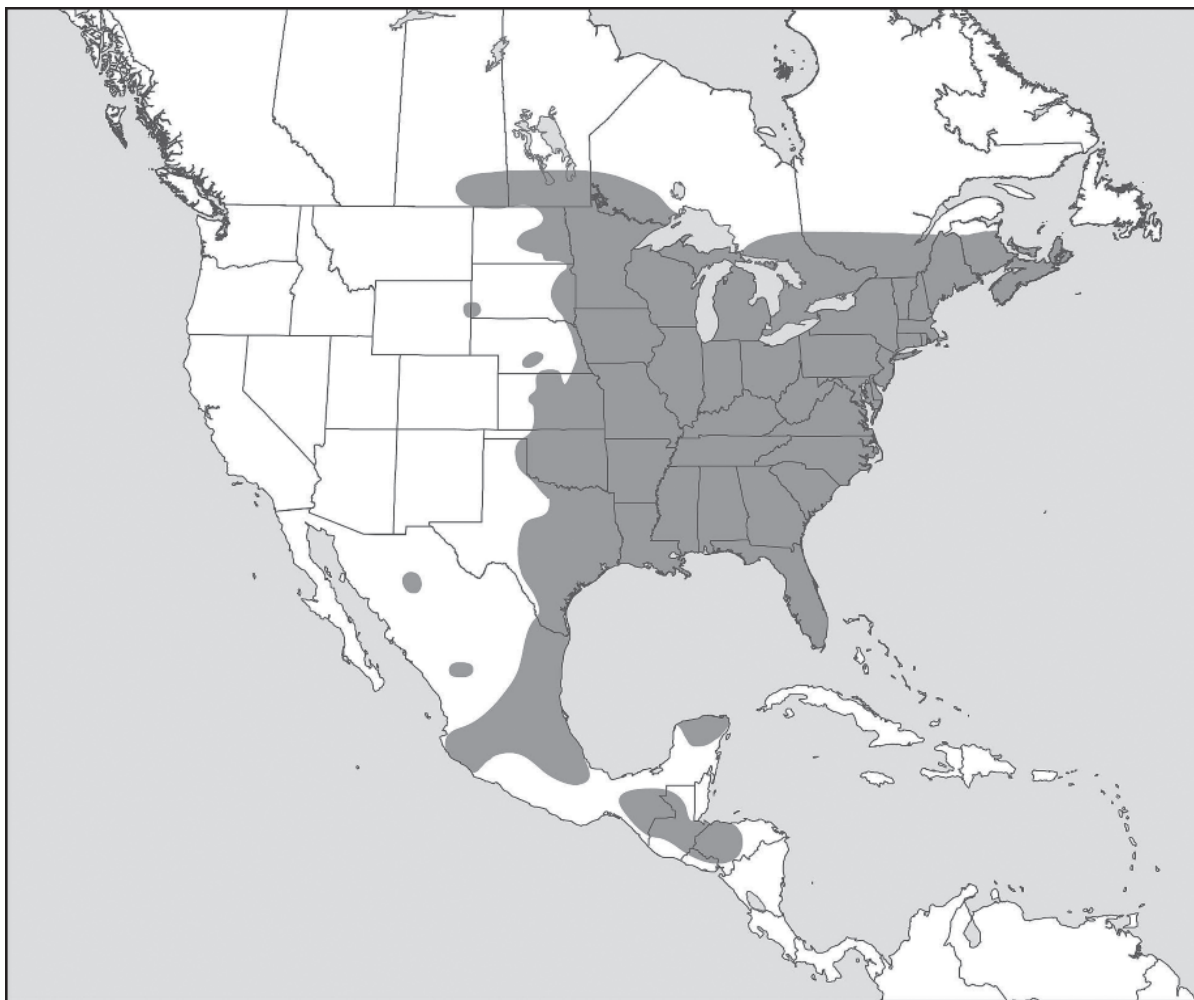


FIGURE 5. *Storeria occipitomaculata occipitomaculata* from the same small rockslide, Warren County, Pennsylvania. Photograph by Tom Sinclair.

Ernst (2008a) also presented a color photograph of habitat. Taylor and Smith (1939) illustrated the head, and illustrations of individual body size allometries versus prey size are presented in King (2002). Other illustrations are as follows: **vertebrae** (Holman 2000), **head scales** (Dugès 1888, 1890; Trapido 1944; Lee 1996, 2000), **body or tail scales** (Dugès 1888, 1890; Casas Andreu and McCoy 1979), **shed skins** (Gray 2005), and **hemipenis** (Cope 1895, [1898] 1900).

• **DISTRIBUTION.** The genus *Storeria* is found from Nova Scotia west to southeastern Saskatchewan and North Dakota, southward through Florida and to the Gulf Coast and southeastern Texas, through Mexico to Yucatan in the east and Guerrero in the west, and south to Guatemala and north central Honduras.

Papers discussing distribution include: Anderson (1960), Ashton and Ashton (1981), Barbour (1971), Bartlett and Bartlett (2003), Christman (1982), Collins (1993), Collins et al. (2010), Conant (1951), Conant and Collins (1998), Cook (1984), Davis and Smith (1953), DeGraaf and Rudis (1981, 1983), Duellman (1961), Dundee and Rossman (1989), Dunn (1936), Ernst (2002b), Ernst and Barbour (1989), Ernst and Ernst (2003), Gibbons and Dorcas (2005), Green and Pauley (1987), Hardy and McDiarmid (1969), Hulse et al. (2001), Jackson (1983), Lee (1996, 2000, 2005), Lindquist and Lindquist (2006); Linzey and Clifford (1981), Martin and Harrell (1957), McCoy (1982), Mendoza Quijano (1990), Minnesota Herpetological Society (1985), Minton (1972), Mitchell (1994), Moler (1992), Mount (1975), Palmer and Braswell (1995), Peters and Orejas-Miranda (1970), Ponce-Campos et al. (2003), Schmidt and Shannon (1947), Smith and Taylor (1950a, 1966), Stuart (1948, 1950, 1954, 1963), Tanner and Robison (1960), Taylor (1952), Taylor and Smith (1939), Tennent (1984, 1985, 1997, 1998), Tennant and Bartlett (2000), Tobey (1985), Trapido (1944), Trauth et al. (2004), Uribe-Peña et al. (1999), Vermersch and Kuntz (1986), Vogt (1981), Webb (1982), Werler and Dixon (2000), Wheeler and Wheeler (1966), Wilson and Meyer (1982), and Wright and Wright (1957).



MAP. Distribution of the genus *Storeria*.

• **FOSSIL RECORD.** Although no fossils assignable to *Storeria* have been reported from south of the United States, abundant middle Pliocene (Blancan) and Pleistocene (Irvingtonian, Mississippian, Rancholabrean) fossils have been found in this country (Holman 1981, 1995, 2000).

Fossils assignable only to the genus *Storeria* are numerous and include: **Blancan** – Nebraska (Holman 2000); **Irvingtonian** – Kansas (Brattstrom 1967), Maryland (Holman 1995, 2000), Nebraska (Ford 1992), **Texas** (Holman and Winkler 1987), and West Virginia (Holman and Grady 1987, 1989); **Mississippian** – Indiana (Richards and Munson 1988); **Rancholabrean** – Alabama (Holman et al. 1990), Georgia (Fay 1988), Kansas (Brattstrom 1967; Preston 1979), Missouri (Saunders 1977), Pennsylvania (Guilday et al. 1964; Richmond 1964), Tennessee (Klippel and Parmalee 1982), Texas (Preston 1979), and Virginia (Guilday 1962; Holman and McDonald 1986).

Rancholabrean remains of *Storeria dekayi* have been identified from deposits in Florida (Auffenberg 1963; Gut and Ray 1963; Holman 1995), Georgia (Fay 1988; Holman 1967), Kansas (Holman 1987; Preston 1979), Pennsylvania (Holman 1995), Texas

(Holman 1962; Preston 1979), and Virginia (Fay 1988; Guilday 1962). Rancholabrean fossils of *Storeria occipitomaculata* have been reported from Pennsylvania (Holman 1995, 2000) and Virginia (Fay 1984, 1988; Guilday 1962). For localities of fossil *S. dekayi* and *S. occipitomaculata*, see the maps in Christman (1982) and Ernst (2002b). Russell et al. (2009) placed this record in the context of a warm Late Pleistocene climate in the southeastern United States.

• **PERTINENT LITERATURE.** Species accounts published in the Catalogue of American Amphibians and Reptiles include *Storeria dekayi* (Christman 1982), *Storeria hidalgoensis* (Ernst 2008a), *Storeria occipitomaculata* (Ernst 2002b), and *Storeria storerioides* (Ernst 2008b). General accounts are in Trapido (1944) and Lee (1996). Other selected papers by topic are as follows: **albinism** (Camper and Dixon 1988; Cebula 1983; Dyrkacz 1981; Hensley 1959), **allometry** (King 2002), **blood chemistry** (Dessauer 1970), **checklists and similar compendia** (Crother et al. 2000; Liner 1994, 2007; Lohring 2007), **conservation** (Bowers et al. 2000; Kilpatrick et al. 2010; Mitchell 1995; Smith and Riss-

ler 2010), **cranial myology** (Varkey 1979), **digestive tract** (Skoczylas 1978), **disease** (Hartup 1996), **ear** (Baird 1970), **ecology and distribution** (Ball 1980; Bonati 1980; Bumpus 1885; Cobb and Summerhill 1996; Cromer et al. 2002; Crosswhite et al. 2004; Davis et al. 2010; Fitch 2006; Gibbons and Semlitsch 1981; Gray and Lethaby 2008; Holman 1961; Johnson 1964; Kilpatrick et al. 2010; Kjoss and Litvaitis 2001a,b; Meyers and Pike 2006; Paton 2005; Shipman et al. 2004; Taggart 2000; Viets 1993), **embryology** (Parsons 1959), **endocrinology** (Clausen 1940; Yaron 1985), **feeding behavior and adaptations** (Catling and Freedman 1980b; Cunningham and Burghardt 1999; Ernst and Zug 1996; Gans 1978; King 2002; Rossman and Myer 1990), **fossil history and zoogeography** (Holman 1981, 1995, 2000; Martin and Harrell 1957), **functional anatomy** (Blackburn et al. 2009), **general morphology** (Marx and Rabb 1972), **hibernation** (Gregory 1982; Zug and Ernst 2004), **karyotype** (Baker et al. 1972; Gilboa 1975; Hardy 1971; Hubble 1971), **letisimulation** (Liner 1977), **longevity** (Snider and Bowler 1992), **lungs** (Wallach 1998), **metabolism** (Bennett and Dawson 1976; Clausen 1936), **nasal anatomy and function** (Halpern 1992; Parsons 1959), **parasites** (Baker 1987; Chambers and Hulse 2006; Ernst and Ernst 2006; Harwood 1930; Keegan 1943; McKinstry 1973; Rankin 1945; Rau and Gordon 1980), **predation** (Barbour 1956; Burns 1911; Cahn and Kemp 1930; Errington and Breckenridge 1938; Fisher 1893; Fogarty and Hetrick 1973; Gehlbach 1994; Penak 1982; Sandidge 1953; Taylor 1970; Telfair 1983; Tyler 1991), **renal function** (Dantzler 1976; Fox 1977), **reproduction** (Alvarado-Diaz 2005; Clausen 1940; Ernst and Zug 1996; Fitch 1970, 1985; Noble 1937; Rahn 1938, 1939, 1940; Saint Girons 1985; Seigel and Fitch 1984; Shine 1992; Stuart 1948; Trapido 1940; Turner 1977; Wusterbarth et al. 2010; Yaron 1985; Zug and Ernst 2004), **sexual dimorphism** (Fitch 1981; King et al. 1999), **stereotyped behavior** (Carpenter 1977; Ferguson 1977), **systematics, taxonomy or evolution** (Anderson 1961; Boulenger 1893, 1896; Christman 1980; Crother et al. 2000; Dunham and Miles 1985; Dunn 1931; Ernst and Zug 1996; Fischer 1882; Garman 1883, 1884; Marx and Rabb 1972; Peters and Orejas-Miranda 1970; Schmidt 1953; Stuart 1963; Taylor 1942; Trapido 1944; Werner 1929; Williams and Wallach 1989; Yarrow 1882; Zug and Ernst 2004), **teeth** (Kearney and Rieppel 2006), **type-localities** (Smith and Taylor 1950b), and **type-specimens** (Cochran 1961; ICZN 1962; Smith and Huheey 1961; Smith et al. 1964; Taylor 1933).

Literature regarding *Storeria dekayi* and *S. occipitomaculata* published after or not included in Christman (1982) and Ernst (2002b) are as follows: **S. dekayi** (Applegate et al. 1995; Ashton and Ashton 1981; Baker 1987; Ballinger et al. 2010; Barbour 1971; Bartlett 1988; Bartlett and Bartlett 2003; Bloch 1993; Boundy 1997; Breckenridge 1944; Burghardt 1983; Byrd and Jenkins 1996; Camper and Dixon 1988; Casper 1987, 1999; Catling and Freedman 1980a,b; Cebula 1983; Cebula and Redmer 1988; Clawson

and Basket 1982; Cochran 1992; Cochran and Goin 1970; Cochran et al. 2001; Collins 1993, 2004; Collins et al. 2010; Conant 1951; Cook 1954, 1984; Cordes 1988; Cunningham and Burghardt 1999; Degraaf and Rudis 1981, 1983; Dellinger and Black 1938; Ditmars 1935, 1936, 1939; Ducey et al. 1999; Dundee and Rossman 1989; Ernst 2003; Ernst and Barbour 1989; Ernst and Ernst 2003, 2006; Ernst et al. 1997; Farley 1999; Ferner and Wilson 2005; Fitch 1982, 1999, 2003; Ford 1990; Freedman and Catling 1979; Gibbons and Dorcas 2005; Gray 2002a, 2005, 2006; Green and Pauley 1987; Greenbaum and Davis 2006; Greene 1984; Gregory 1984, 2004; Groves 1984; Haast and Anderson 1981; Hammerson 1986; Hall 1980; Harding 1997; Hayes 1987; Held 2003; Herrington 1999; Holman et al. 1993; Holycross 1990, 1992; Hulse et al. 2001; Hunley 2003; Hunter et al. 1992, 1999; ICZN 1962; Jackson 1983; Johnson 1987; Karges 1978; Keiser and Wilson 1979; Kelly 1936; King 1993, 1997, 2002; King and Lawson 2001; King et al. 1999; Krysko and Reppas 1998; Lee 2005; Linzey 1979; Linzey and Clifford 1981; Logier 1958; Logier and Toner 1961; Long et al. 1987; Mala-ret and Fitch 1984; Marion and Chandler 1983; Mar-tof 1956; Martof et al. 1980; McAllister and Twilley 2002; McCauley 1945; McCoy 1982; Mecham 1982; Mehrtens 1987; Meshaka 1988, 1994; Michels 1979; Mineau and Markel 1981; Minton 1972; Mitchell 1994; Mitchell and Anderson 1994; Moler 1992; Mount 1975; Murren and Murren 1980; Olson 1987; Palmer and Braswell 1995; Pauly and Brown 2005; Petzing 1994; Petzing and Phillips 1998; Petzing et al. 1998; Pewtress 1981; Powell et al. 1998, 2012; Ramsey and McAllister 2004, 2005; Rau and Gordon 1980; Reichenbach and Dalrymple 1981; Robison and Rader 2005; Roddy 1928; Rossi 1992; Rossman and Myer 1990; Scharf and Jorae 1980; Schmidt 2004; Schmidt and Davis 1941; Schluter 1995; Schuett and Kraus 1981; Simpson 1987; Smith 1943; Smith and Brodie 1982; Smith et al. 1996; Snyder 1972; Stevenson and Crowe 1992; Surface 1906; Tennent 1984, 1985, 1997, 1998; Tennant and Bartlett 2000; Toal 1992; Tobey 1985; Trauth et al. 2004; Trutnau 1986; Tucker and Theiling 1994; Tucker et al. 1994, 1995; Vance and Edwards 1980; Vermersch and Kuntz 1986; Vogt 1981; Volkmann 2003; Watermolen 2000; Weekly and Haynes 1992; Werler and Dixon 2000; Willson and Dorcas 2004; Wilson 1999; Wilson and Porras 1983), **S. occipitomaculata** (Anderson 1960; Andre and Walley 2002; Baker 1987; Ballinger et al. 2010; Bartlett 1988; Bartlett and Bartlett 2003; Bittner and Bittner 2001; Boundy 1997; Cabe 2002; Camp-bell and Christman 1982; Casper 2001; Cochran and Goin 1970; Collins 2003; DeGraaf and Rudis 1981, 1983; Ernst and Ernst 2003, 2006; Fitch 2003; Gibbons and Dorcas 2005; Gray 2002a,b, 2004, 2005, 2006; Gregory 1984, 2004; Haast and Anderson 1981; Hall 1980; Hulse et al. 2001; ICZN 1962; Irwin and Blihovde 2001; Keiser and Wilson 1979; Krusling et al. 2004; Lindquist and Lindquist 2006; Martof 1956; Muenz and Smith 2005; Pope 1964; Renkin and Fantz 2002; Ross 1989; Shaw and Campbell

1974; Smith and Huheey 1961; Townsend et al. 2001; Trauth et al. 2004; Trutnau 1986; Walley 2001; Watkins-Colwell 2002; Werler and Dixon 2000; Wheeler and Wheeler 1966; Willson and Dorcas 2004).

• **KEY TO SPECIES.** The catalogue account numbers are given in parentheses after the name.

1. a. Body scales in 15 rows.....2
b. Body scales in 17 rows.....*S. dekayi* (306)
2. a. Loreal scale present.....*S. storerioides* (860)
b. Loreal absent.....3
3. a. Venter gray, whitish, or pink; head dark with dark posterior fork.....*S. hildalgoensis* (859)
b. Venter reddish.....*S. occipitamaculata* (759)

• **REMARKS.** The name *Coluber leberis* Linnaeus, 1758:216 is a senior synonym of *Coluber occipitamaculatus* Storer, 1839:230, a species accepted as a taxon in the genus *Storeria* since 1853 (Baird and Girard 1853:137). It is also a senior synonym of *Regina septemvittatus* Say, 1825:240 (see Ernst 2002a). Consequently, the generic name *Regina* Baird and Girard, 1853 has priority over the name *Storeria* Baird and Girard, 1853. Smith and Huheey (1961:347) petitioned the ICZN to use its plenary powers to preserve the generic names *Regina* Baird and Girard, 1853 and *Storeria* Baird and Girard, 1853, particularly since *Storeria* had been used for over 100 years as the name for the genus of the North American Brown-snakes. Responding to the petition, the ICZN (1962:145) placed the two genera on the Official List of Generic Names in Zoology. See Smith and Huheey (1961) for complete details, which also included the designation of a type-species for each of the two genera.

Christman (1980) reviewed the morphology of the taxon *Storeria dekayi victa* Hay, 1892, and considered it sufficiently different from the other subspecies of *S. dekayi* to warrant its elevation to full species rank. Crother et al. (2000) followed his suggestion, although few others have. However, Christman (1982), in his later review of *S. dekayi*, retained *victa* as a subspecies. Because of Christman's uncertainty, and until such time as further molecular and morphological studies of its relationships to the other subspecies of *S. dekayi* are published, the taxon should remain the subspecies *S. d. victa*.

• **ETYMOLOGY.** The name *Storeria* is a patronym honoring David Humphreys Storer, Massachusetts physician and naturalist and author of classic works on the fishes and reptiles of Massachusetts, resulting from his appointment in 1837 as a commissioner of the natural history survey of that state (Scudder 1891–1982).

LITERATURE CITED

Alvarado Diaz, J. 2005. *Storeria storerioides* (Mexican Brown Snake). Reproduction. Herpetol. Rev.

36:328.

Amaral, A. do. 1929. Estudos sobre ophidios neotropicos XVIII – Lista remissiva dos ophidios da re-giao Neotropica. Mem. Inst. Butantan (4):1–270.

Anderson, J.D. 1960. *Storeria storerioides* in western Mexico. Herpetologica 16:63–66.

Anderson, P.K. 1961. Variation in populations of Brown Snakes, genus *Storeria*, bordering the Gulf of Mexico. Amer. Midl. Nat. 66:235–249.

Andre, M.A. and H.D. Walley. 2002. Geographic distribution. *Storeria occipitamaculata* (Red-bellied Snake). Herpetol. Rev. 33: 325.

Applegate, R.D., R.C. Spencer, and F.M. Trasko. 1995. Extensions to the known range of three Maine reptiles. Can. Field-Nat. 109:444–446.

Ashton, R.E., Jr. and P.S. Ashton. 1981. Handbook of Reptiles and Amphibians of Florida. Part 1. The Snakes. Windward Publ., Miami.

Auffenberg, W. 1963. The fossil snakes of Florida. Tulane Stud. Zool. 10:131–216.

Baird, I.L. 1970. The anatomy of the reptilian ear, p. 193–275. In C. Gans and T.S. Parsons (eds.), Biology of the Reptilia, Volume 2, Morphology B. Academic Press, London.

Baird, S.F. and C. Girard. 1853. Catalogue of North American Reptiles in the Museum of the Smithsonian Institution. Part 1, Serpents. Washington, D.C.

Baker, M.R. 1987. Synopsis of the Nematoda parasitic in amphibians and reptiles. Occas. Pap. Biol. Mem. Univ. Newfoundland (11):1–325.

Baker, R.J., G. A. Mengden, and J.J. Bull. 1972. Karyotypic studies of thirty-eight species of North American snakes. Copeia 1972:257–265.

Ball, S. 1980. Ecology and Distribution of Herpetofauna on the Red River and Associated Oxbow Lakes from Index, Arkansas to Shreveport Louisiana. M.S. Thesis, Henderson St. Univ., Arkadelphia, Arkansas.

Ballinger, R.E., J.D. Lynch, and G.R. Smith. 2010. Amphibians and Reptiles of Nebraska. Rusty Lizard Press, Oro Valley, Arizona.

Barbour, R.W. 1956. A study of the Cottonmouth, *Anistrodon piscivorus leucostoma* Troost, in Kentucky. Trans. Kentucky Acad. Sci. 17:33–41.

–. 1971. Amphibians and Reptiles of Kentucky. Univ. Press Kentucky, Lexington.

Bartlett, R.D. 1988. In Search of Reptiles and Amphibians. Brill, New York.

– and P. Bartlett. 2003. Florida's Snakes. A Guide to Their Identification and Habits. Univ. Press Florida, Gainesville.

Bennett, A.F. and W.R. Dawson. 1976. Metabolism, p. 127–223. In C. Gans and W.R. Dawson (eds.), Biology of the Reptilia, Volume 5, Physiology A. Academic Press, London.

Bittner, R.T. and T.D. Bittner. 2001. Geographic distribution. *Storeria occipitamaculata* (Redbelly Snake). Herpetol. Rev. 32:280.

Blackburn, D.G., K.E. Anderson, A.R. Johnson, S.R. Knight, and G.S. Gavelis. 2009. Histology and ultrastructure of the placental membranes of the

- viviparous Brown Snake, *Storeria dekayi* (Colubridae: Natricinae). J. Morphol. 270:1137–1154.
- Bloch, C. 1993. Brown Snake, *Storeria dekayi*. Nor-disk Herpetol. For. 36:64.
- Bonati, R.L. 1980. The Amphibians and Reptiles of Northwestern Arkansas: a Report on Their Distribution and Relative Abundance. M.S. Thesis, Univ. Arkansas, Fayetteville.
- Boulenger, G.A. 1893 Catalogue of the snakes in the British Museum (Natural History). Volume 1, containing the families Typhlopidae, Glauconiidae, Boidae, Ilysiidae, Uropeltidae, Xenopeltidae, and Colubridae Aglyphae, part. Trustees of the British Museum (Nat. Hist.), London.
- . 1896. Catalogue of the snakes in the British Museum (Natural History). Volume 3, containing the Colubridae (Opisthoglyphae and Proteroglyphae), Amblycephalidae, and Viperidae. Trustees of the British Museum (Nat. Hist.), London.
- Boundy, J. 1997. Snakes of Louisiana. Louisiana Dept. Wildl. Fish., Baton Rouge.
- Bowers, C.F., H.G. Hanlin, D.C. Guynn, Jr., J.P. McLendon, and J.R. Davis. 2000. Herpetofaunal and vegetational characterization of a thermally impacted stream at the beginning of restoration. Ecol. Engineering 15:S101–S114.
- Brattstrom, B.H. 1967. A succession of Pliocene and Pleistocene snake faunas from the High Plains of the United States. Copeia 1967:188–202.
- Breckenridge, W.J. 1944. Reptiles and Amphibians of Minnesota. Univ. Minnesota Press, Minneapolis.
- Bumpus, H.C. 1885. Reptiles and batrachians of Rhode Island. Random Notes Nat. Hist. 2:44–45.
- Burghardt, G.M. 1983. Aggregation and species discrimination in newborn snakes. Z. Tierpsychol. 61:89–101.
- Burns, F.L. 1911. A monograph of the Broad-winged Hawk (*Buteo platypterus*). Wilson Bull. 23:143–320.
- Byrd, J.G. and L.N. Jenkins. 1996. Natural history notes. *Lampropeltis getula niger* (Black King-snake). Diet. Herpetol. Rev. 27:204.
- Cabe, P.R. 2002. *Storeria occipitomaculata occipitomaculata* (Northern Red-bellied Snake). Catesbeiana 22:14–15.
- Cahn, A.R. and J.T. Kemp. 1930. On the food of certain owls in east-central Illinois. Auk 47:323–328.
- Campbell, H.W. and S.P. Christman. 1982. The herpetological components of Florida sandhill and sand pine scrub associations. USFWS Wildl. Res. Rep. (13):163–171.
- Camper, J.D. and J.R. Dixon. 1988. Albinism in the Texas Brown Snake, *Storeria dekayi texana*. Bull. Chicago Herpetol. Soc. 23:73.
- Carpenter, C.C. 1977. Variation and evolution of stereotyped behavior in reptiles. Part I. Survey of stereotyped reptilian behavioral patterns, p. 335–403. In C. Gans and D.W. Tinkle (eds.), Biology of the Reptilia, Volume 7, Ecology and Behaviour A. Academic Press, London.
- Casas Andreu, G. and C.J. McCoy. 1979. Anfibiós y Reptiles de Mexico. Claves ilustrados para su identificación. Edit. Limusa, Arcos de Belén, Mexico.
- Casper, G. 1987. New herpetological records for Wisconsin, USA. Bull. Chicago Herpetol. Soc. 22:95.
- . 1999. New distribution records from the Wisconsin Herpetology Atlas Project, 1998. Herpetol. Rev. 30:181–182.
- . 2001. Geographic distribution. *Storeria occipitomaculata occipitomaculata* (Northern Red-bellied Snake). Herpetol. Rev. 32:196.
- Catling, P.M. and B. Freedman. 1980a. Variation in distribution and abundance of four sympatric species of snakes at Amherstburg, Ontario. Can. Field Nat. 94:19–27.
- and –. 1980b. Food and feeding behavior of sympatric snakes at Amherstburg, Ontario. Can. Field Nat. 94:28–83.
- Cebula, J.J. 1983. A note on a melanistic Brown Snake. Bull. Chicago Herpetol. Soc. 18:47.
- and M. Redmer. 1988. Observations on the reproduction of *Storeria dekayi* in Dupage County, Illinois. Bull. Chicago Herpetol. Soc. 23:29.
- Chambers, D.L. and A.C. Hulse. 2006. *Salmonella* serovars in the herpetofauna of Indiana County, Pennsylvania. Appl. Environ. Microbiol. 72:3771–3773.
- Christman, S.P. 1980. Patterns of geographic variation in Florida snakes. Bull. Florida St. Mus. Biol. Sci. 25:157–256.
- . 1982. *Storeria dekayi*. Cat. Amer. Amphib. Rept. (461):1–2.
- Clausen, H.J. 1936. The effect of aggregation on the respiratory metabolism of the Brown Snake *Storeria dekayi*. J. Cell. Comp. Physiol. 8:367–386.
- . 1940. Studies on the effect of ovariectomy and hypophysectomy on gestation in snakes. Endocrinology 27:700–704.
- Clawson, M.E. and T.S. Baskett. 1982. Herpetofauna of the Ashland Wildlife Area, Boone County, Missouri. Trans. Missouri Acad. Sci. 16:5–16.
- Cobb, V.A. and J.A. Summerhill. 1996. A one-year study of the species diversity and relative abundance of snakes and lizards in the Jack Mountain region of Hot Spring County, Arkansas. Proc. Arkansas Acad. Sci. 50: 120–126.
- Cochran, A.G., P.A. Cochran, J.A. Cochran, and C.D. Knight. 2001. Geographic distribution. *Storeria dekayi* (Brown Snake). Herpetol. Rev. 32:280.
- Cochran, D.M. 1961. Type specimens of reptiles and amphibians in the U.S. National Museum. Bull. U.S. Natl. Mus. (220):xv + 291 p.
- and C.J. Goin. 1970. The New Field Book of Reptiles and Amphibians. G.P. Putnam's Sons, New York.
- Cochran, P.A. 1992. New locality observations for some amphibians and reptiles in Wisconsin. Bull. Chicago Herpetol. Soc. 27:64.
- Collins, J.T. 1993. Amphibians and Reptiles in Kansas. 3rd ed., revised. Univ. Kansas Mus. Nat. Hist. Ed. Ser. (13):1–397.
- . 2004. *Storeria dekayi* (Brown Snake) Kansas. J. Kansas Herpetol. 12:17.
- , S.L. Collins, and T.W. Taggart. 2010. Amphibians, Reptiles, and Turtles in Kansas. Eagle Mountain

- Publ. Co., Eagle Mountain, Utah.
- Collins, S.L. 2003. Rare Redbelly Snake from Wyoming. *J. Kansas Herpetol.* 5:10.
- Conant, R. 1951. *The Reptiles of Ohio*. 2nd Ed. Notre Dame Press, Notre Dame, Indiana.
- and J.T. Collins. 1998. *A Field Guide to Reptiles and Amphibians*. Eastern and Central North America. 3rd Ed., expanded. Houghton Mifflin, Co., Boston.
- Cook, F.A. 1954. Snakes of Mississippi: survey bulletin. *Mississippi Game Fish. Comm.*, Jackson.
- Cook, F.R., 1984. *Introduction to Canadian Amphibians and Reptiles*. Natl. Mus. Canada, Ottawa.
- Cope, E.D. 1865. Third contribution to the herpetology of tropical America. *Proc. Acad. Nat. Sci. Philadelphia* 17:185–198.
- . 1888(1889). On the snakes of Florida. *Proc. U.S. Natl. Mus.* 11:381–394.
- . 1895. The classification of the Ophidia. *Trans. Amer. Philos. Soc.* 18:186–219 + pls. xiv–xxxiii.
- . [1898] 1900. The Crocodilians, Lizards, and Snakes of North America. *Ann. Rep. U.S. Natl. Mus.* 1898:153–1270 + 36 pl.
- Cordes, J.E. 1988. Geographic distribution. *Storeria dekayi texana* (Texas Brown Snake). *Herpetol. Rev.* 19:21.
- Cromer, R.B., J.D. Lanham, and H.H. Hanlin. 2002. Herpetofaunal response to gap and skidder-rut wetland creation in a southern bottomland hardwood forest. *Forest Sci.* 48: 407–413.
- Crosswhite, D.L., S.F. Fox, and R.E. Thill. 2004. Herpetological habitat relations in the Ouachita Mountains, Arkansas, p. 273–282. *In* J.M. Guldin (Tech. Compl.), *Ouachita and Ozark Mountains Symposium: Ecosystem Management Research*. USDA, For. Serv., So. Res. Sta., Gen. Tech. Rep. (SRS-74), Asheville, North Carolina.
- Crother, B.I. (Chair). 2000. Scientific and standard English names of amphibians and reptiles of North America north of Mexico, with comments regarding confidence in our understanding. *SSAR Herpetol. Circ.* (29):iii + 82 p.
- Cunningham, D.S. and G.M. Burghardt. 1999. A comparative study of facial grooming after prey ingestion in colubrid snakes. *Ethology* 105:913–936.
- Dantzler, W.H. 1976. Renal function (with special emphasis on nitrogen excretion), p. 447–503. *In* C. Gans and W.R. Dawson (eds.), *Biology of the Reptilia*, Volume 5., Physiology A. Academic Press, London.
- Davis, J.C., S.B. Castleberry, and J.C. Kilgo. 2010. Influence of coarse woody debris on herpetofaunal communities in upland pine stands of the southeastern Coastal Plain. *Forest Ecol. Manage.* 259:1111–1117.
- Davis, W.B. and H.M. Smith. 1953. Snakes of the Mexican state of Morelos. *Herpetologica* 8:133–143.
- DeGraaf, R.M. and D.D. Rudis. 1981. *Forest Habitat for Reptiles & Amphibians of the Northeast*. U.S. For. Serv. Amherst, Massachusetts.
- and —. 1983. *Amphibians and Reptiles of New England. Habitats and Natural History*. Univ. Massachusetts Press, Amherst.
- Dellinger, S.C. and J.D. Black. 1938. Herpetology of Arkansas. Part 1. The reptiles. *Occas. Pap. Univ. Arkansas Mus.* (1):1–47.
- Dessauer, H.C. 1970. Blood chemistry of reptiles: physiological and evolutionary aspects, p. 1–72. *In* C. Gans and T.S. Parsons (eds.), *Biology of the Reptilia*, Volume 3., Morphology C. Academic Press, London.
- Ditmars, R.L. 1935. *Serpents of the Northeastern States*. New York Zool. Soc., New York.
- . 1936. *The Reptiles of North America. A Review of the Crocodiles, Lizards, Snakes, and Turtles and Tortoises Inhabiting the United States and Northern Mexico*. Doubleday Doran, New York.
- . 1939. *A Field Book of North American Snakes*. Doubleday Doran, New York.
- Ducey, P.K., M. Messere, K. Lapoint, and S. Noce. 1999. Lumbricid prey and potential herpetofaunal predators of the invading terrestrial flatworm *Bipalium adventitium* (Turbellaria: Tricladida: Terricola). *Amer. Midl. Nat.* 141:305–314.
- Duellman, W.E. 1961. The amphibians and reptiles of Michoacán, México. *Univ. Kansas Publ. Mus. Nat. Hist.* (15):1–148.
- Dugès, A.A.D. 1888. Sur deux espèces nouvelles de ophiidiens de Mexique. *Proc. Amer. Philos. Soc.* 25:181–183.
- . 1888(1890). Dos nuevas especies de ofidios Mexicanos. *La Naturaleza ser.* 2, 1:402–405.
- Duméril, A.M.C. 1853. *Prodrome de la classification des reptiles ophiidiens*. *Mem. Acad. Sci. Inst. France* 23:399–536.
- and G. Bibron. 1854. *Erpetologie générale au histoire naturelle complete des reptiles*. Paris 7(1):xvi + 780 p.
- Duméril, A.H.A., M.-F. Bocourt, and F. Mocquard. 1870–1909. *Étude sur les Reptiles. Mission Scientifique au Mexique et dans l'Amérique Centrale. Recherches Zoologiques. Troisième Partie – 1re Section*. Impr. Nat., Paris.
- Dundee, H.A. and D.A. Rossman. 1989. *The Amphibians and Reptiles of Louisiana*. Louisiana St. Univ. Press, Baton Rouge.
- Dunham, A.E. and D.B. Miles. 1985. Patterns of covariation in life history traits of squamate reptiles: the effects of size and phylogeny reconsidered. *Am. Nat.* 126:231–257.
- Dunn, E.R. 1931. Some Central American snake genera. *Copeia* 1931:163.
- . 1936. The amphibians and reptiles of the Mexican expedition of 1934. *Proc. Acad. Nat. Sci. Philadelphia* 88:471–477.
- Dyrkacz, S. 1981. Recent instances of albinism in North American amphibians and reptiles. *SSAR Herpetol. Circ.* (11):1–31.
- Ernst, C.H. 2002a. *Regina septemvittata*. *Cat. Am. Amphib. Rept.* (757):1–5.
- . 2002b. *Storeria occipitomaculata*. *Cat. Am. Amphib. Rept.* (759):1–8.
- . 2003. Ecological parameters of the Northern Brown Snake, *Storeria dekayi*. *Herpetol. Bull.* 86: 10–18.
- . 2008a. *Storeria hidalgoensis*. *Cat. Am. Amphib.*

- Rept. (859):1–3.
- . 2008b. *Storeria storerioides*. Cat. Am. Amphib. Rept. (860):1–4.
 - and R.W. Barbour. 1989. Snakes of Eastern North America. George Mason Univ. Press, Fairfax, Virginia.
 - , S.C. Belfit, S.W. Sekscienski, and A.F. Laemmerzahl. 1997. The amphibians and reptiles of Ft. Belvoir and northern Virginia. Bull. Maryland Herpetol. Soc. 33:1–62.
 - and E.M. Ernst. 2003. Snakes of the United States and Canada. Smithsonian Books, Washington, D.C.
 - and –. 2006. Synopsis of helminths endoparasitic in snakes of the United States and Canada. SSAR Herpetol. Circ. (34):1–86.
 - and G.R. Zug. Snakes in Question. Smithsonian Inst. Press, Washington, D.C.
 - Errington, P.L. and W.J. Breckenridge. 1938. Food habits of buteo hawks in the north-central United States. Wilson Bull. 50:113–121.
 - Farley, G.H. 1999. Geographic distribution. *Storeria dekayi* (Brown Snake). Herpetol. Rev. 30:114.
 - Fay, L.P. 1984. Mid-Wisconsinan and mid-Holocene herpetofaunas of eastern North America: a study in minimal contrast. Carnegie Mus. Nat. Hist. Spec. Publ. (8):14–19.
 - . 1988. Late Wisconsinan Appalachian herpetofaunas: relative stability in midst of change. Ann. Carnegie Mus. 57:189–220.
 - Ferguson, G.W. 1977. Variation and evolution of stereotyped behavior in reptiles. Part II. Social displays of reptiles, p. 405–554. In C. Gans and D.W. Tinkle (eds.), Biology of the Reptilia, Volume 7, Ecology and Behaviour A. Academic Press, London.
 - Ferner, J.W. and A. Wilson. 2005. Geographic distribution. *Storeria dekayi* (Dekay's Brownsnake). Herpetol. Rev. 36:204.
 - Fischer, J.G. 1882. Herpetologische Bemerkungen. Arch. Naturgesch. 48:281–302.
 - Fisher, A.K. 1893. The hawks and owls of the United States in their relation to agriculture. USDA Div. Ornithol. Mamm. Bull. (3):1–210 + 26 color pl.
 - Fitch, H.S. 1970. Reproductive cycles in lizards and snakes. Univ. Kansas Mus. Nat. Hist. Misc. Publ. (52):1–247.
 - . 1981. Sexual size differences in reptiles. Univ. Kansas Mus. Nat. Hist. Misc. Publ. (70):1–72.
 - . 1982. Resources of a snake community in prairie-woodland habitat of northeastern Kansas. USFWS Wildl. Res. Rep. (13):83–97.
 - . 1985. Variation in clutch and litter size in New World reptiles. Univ. Kansas Mus. Nat. Hist. Misc. Publ. (76):1–76.
 - . 1999. A Kansas Snake Community: Composition and Changes over 50 Years. Krieger Publ. Co., Malabar, Florida.
 - . 2003. Reproduction in snakes of the Fitch Natural History Reservation in northeastern Kansas. J. Kansas Herpetol. 6:21–24.
 - . 2006. Ecological succession on a natural area in northeastern Kansas from 1948 to 2006. Herpetol. Conserv. Biol. 1:1–15.
 - Fogarty, M.J. and W.M. Hetrick. 1973. Summer foods of cattle egrets in north central Florida. Auk 90: 268–280.
 - Ford, K.M., III. 1992. Herpetofauna of the Albert Ahrens Local Fauna (Pleistocene: Irvingtonian), Nebraska. M.S. Thesis, Michigan St. Univ., East Lansing.
 - Ford, N.B. 1990. Reproductive data on snakes from northeastern Texas. Texas J. Sci. 42: 355–368.
 - Fox, H. 1977. The urinogenital system of reptiles, p. 1–157. In C. Gans and T.S. Parsons (eds.), Biology of the Reptilia, Volume 6, Morphology E. Academic Press, London.
 - Freedman, B. and P. M. Catling. 1979. Movements of sympatric species of snakes at Amherstburg, Ontario. Can. Field-Nat. 93: 399–404.
 - Gans, C. 1978. Reptilian venoms: some evolutionary considerations, p. 1–42. In C. Gans and K.A. Gans. (eds.), Biology of the Reptilia, Volume 8, Physiology B. Academic Press, London.
 - Garman, S. 1883(1884). The reptiles and batrachians of North America. Mem. Mus. Comp. Zool. 8:xxxiv + 185 p.
 - . 1884. The North American reptiles and batrachians. A list of the species occurring north of the Isthmus of Tehuantepec, with references. Bull. Essex Inst. 16:1–46.
 - Gehlbach, F.R. 1994. The Eastern Screech Owl: Life History, Ecology, and Behavior in the Suburbs and Countryside. Texas A&M Univ. Press, College Station.
 - Gibbons, W. and M. Dorcas. 2005. Snakes of the Southeast. Univ. Georgia Press, Athens.
 - and R.D. Semlitsch. 1981. Terrestrial drift fences with pitfall traps: an effective technique for quantitative sampling of animal populations. Brimleyana (7):1–16.
 - Gilboa, I. 1975. Karyotypes of amphibians and reptiles: a bibliographic review, p. 91–156. In H.G. Dowling (ed.), 1974 Yearbook of Herpetology. Herpetol. Info. Search Serv., Amer. Mus. Nat. Hist., New York.
 - Gray, B.S. 2002a. Natural history notes. *Storeria dekayi dekayi* (Northern Brown Snake) and *S. occipitomaculata occipitomaculata* (Northern Red-bellied Snake). Morphology. Herpetol. Rev. 33:216.
 - . 2002b. An addition to the herpetofauna of the Asbury Woods Greenway, Erie County, Pennsylvania. Bull. Chicago Herpetol. Soc. 37:196–197.
 - . 2004. A den site utilized by the Northern Red-bellied Snake, *Storeria occipitomaculata occipitomaculata*, in Pennsylvania. Bull. Maryland Herpetol. Soc. 40:94–96.
 - . 2005. The Serpent's Cast. A Guide to the Identification of Shed Skins from Snakes of the Northeast and Mid-Atlantic States. Centr. North Amer. Herpetol. Monogr. Ser. (1):1–88.
 - . 2006. Artificial hibernation of some temperate North American snakes. Bull. Chicago Herpetol. Soc. 41:101–104.
 - and M. Lethaby. 2008. The amphibians and reptiles of Erie County, Pennsylvania. Bull. Maryland Her-

- petol. Soc. 44:49–69.
- Green, N.B. and T.K. Pauley. 1987. Amphibians and Reptiles in West Virginia. Univ. Pittsburgh Press, Pittsburgh, Pennsylvania.
- Greenbaum, E. and D.M. Davis. 2006. Geographic distribution. *Storeria dekayi wrightorum* (Midland Brown Snake). Herpetol. Rev. 37:109.
- Greene, H.W. 1984. Feeding behavior and diet of the Eastern Coral Snake, *Micrurus fulvius*, p. 147–162. In J.T. Collins (ed.), Vertebrate Ecology and Systematics. A Tribute to Henry S. Fitch. Univ. Kansas Publ. Mus. Nat. Hist. Spl. Publ. (10).
- Gregory, P.T. 1982. Reptilian hibernation, p. 53–154. In C. Gans and F.H. Pough (eds.), Biology of the Reptilia, Volume 13, Physiology D. Academic Press, New York.
- . 1984. Communal denning in snakes, p. 57–75. In J.T. Collins (ed.), Vertebrate Ecology and Systematics. A Tribute to Henry S. Fitch. Univ. Kansas Mus. Nat. Hist. Spec. Publ. (10).
- . 2004. Analysis of patterns of aggregation under cover objects in an assemblage of six species of snakes. Herpetologica 60:178–186.
- Groves, F. 1984. Life history notes. *Storeria dekayi dekayi* (Northern Brown Snake). Coloration. Herpetol. Rev. 15:19.
- Guilday, J.E. 1962. The Pleistocene local fauna of the Natural Chimneys, Augusta County, Virginia. Ann. Carnegie Mus. 36:87–122.
- , P.S. Martin, and A.D. McCrady. 1964. New Paris No. 4: a Late Pleistocene cave deposit in Bedford County, Pennsylvania. Bull. Natl. Speleol. Soc. 26:121–194.
- Günther, A. 1858. Catalogue of Colubrine Snakes in the collection of the British Museum. Trustees of the British Museum (Nat. Hist.), London.
- Gut, H.J. and C.E. Ray. 1963. The Pleistocene vertebrate fauna of Reddick, Florida. Quart. J. Florida Acad. Sci. 26:315–328.
- Haast, W.E. and R. Anderson. 1981. Complete Guide to Snakes of Florida. Phoenix Publ. Co., Inc., Miami.
- Hall, R.J. 1980. Effects of environmental contaminants on reptiles: a review. USFWS Spec. Sci. Rep.-Wildl. (228):1–12.
- Halpern, M. 1992. Nasal chemical senses in reptiles: structure and function, p. 424–523. In C. Gans and D. Crews (eds.), Biology of the Reptilia, Volume 18, Physiology E. Univ. Chicago Press, Chicago.
- Hammerson, G.A. 1986. Amphibians and Reptiles in Colorado. Colorado Div. Wildl., Dept. Nat. Res., Denver.
- Harding, J.H. 1997. Amphibians and Reptiles of the Great Lakes Region. Univ. Michigan Press, Ann Arbor.
- Hardy, L. 1971. A comparison of karyotypes of the snake genera *Virginia* Baird and Girard and *Storeria* Baird and Girard from northwestern Louisiana. SWANEWS 971(2):12.
- and R.W. McDiarmid. 1969. The amphibians and reptiles of Sinaloa, Mexico. Univ. Kansas Publ. Mus. Nat. Hist. 18:39–252.
- Hartup, B.K. 1996. Rehabilitation of native reptiles and amphibians in DuPage County, Illinois. J. Wildl. Dis. 32:109–112.
- Harwood, P.D. 1930. A new species of *Oxysomatium* (Nematoda) with some remarks on the genera *Oxysomatium* and *Aplectana*, and observations on the life history. J. Parasitol. 17:61–73.
- Hay, O.P. 1892. Descriptions of a supposed new species of *Storeria* from Florida. Science 19:199.
- Hayes, F.E. 1987. Natural history notes. *Storeria dekayi dekayi* (Northern Brown Snake). Behaviour. Herpetol. Rev. 18:16–17.
- Held, M. 2003. *Storeria dekayi* die Noerdliche Braunnatter. Reptilia (Germany) 8:43–46.
- Hensley, M. 1959. Albinism in North American amphibians and reptiles. Publ. Mus. Michigan St. Univ. Biol. Ser. 1:133–159.
- Herrington, B. 1999. Amphibian, reptile and small mammal diversity in a lowland hardwood forest in Marion County, Georgia. Georgia J. Sci. 57:246–254.
- Holbrook, J.E. 1836–1842. North American Herpetology; or, a Description of the Reptiles Inhabiting the United States. Vols. 1–3. Dobson, Philadelphia.
- Holman, J.A. 1961. Amphibians and reptiles of the Howard College Natural Area. J. Alabama Acad. Sci. 32:77–87.
- . 1962. A Texas Pleistocene herpetofauna. Copeia 1962:255–261.
- . 1967. A Pleistocene herpetofauna from Ladds, Georgia. Bull. Georgia Acad. Sci. 25:154–166.
- . 1981. A review of North American Pleistocene snakes. Publ. Mus. Michigan St. Univ. Paleontol. Ser. 1:261–306.
- . 1987. Snakes of the Robert Local Fauna (Late Wisconsinan) of Meade County, Kansas. Contrib. Mus. Paleontol. Univ. Michigan (27):43–150.
- . 1995. Pleistocene Amphibians and Reptiles in North America. Oxford Univ. Press, New York.
- . 2000. Fossil Snakes of North America. Origin, Evolution, Distribution, Paleoecology. Indiana Univ. Press, Bloomington.
- , G. Bell, and J. Lamb. 1990. A Late Pleistocene herpetofauna from Bell Cave, Alabama. Herpetol. J. 1:521–529.
- and F. Grady. 1987. The fossil herpetofauna of New Trout Cave. Natl. Geogr. Res. 3:305–317.
- and —. 1989. The fossil herpetofauna (Pleistocene: Irvingtonian) of Hamilton Cave, Pendleton County, West Virginia. Natl. Speleol. Soc. Bull. 51:34–41.
- , J.H. Harding, M.M. Hensley, and G.R. Dudderar. 1993. Michigan Snakes. A Field Guide and Pocket Reference. Michigan St. Univ. Coop. Ext. Serv., East Lansing.
- and J.N. McDonald. 1986. A late Quarternary herpetofauna from Saltville, Virginia. Brimleyana 12: 85–100.
- and A.J. Winkler. 1987. A mid-Pleistocene (Irvingtonian) herpetofauna from a cave in southcentral Texas. Pearce-Sellards Ser. Texas Mem. Mus. 44: 1–17.

- Holycross, A.T. 1990. Geographic distribution. *Storeria dekayi* (Brown Snake). Herpetol. Rev. 21:97.
- . 1992. Geographic distribution. *Storeria dekayi* (Brown Snake). Herpetol. Rev. 23:27.
- Hubble, D.A. 1971. A comparison of karyotypes of *Storeria dekayi* (Holbrook) and *Storeria occipitomaculata* (Storer) from northwestern Louisiana. SWANEWS 971(2):11.
- Hulse, A.C., C.J. McCoy, and E.J. Censky. 2001. Amphibians and Reptiles of Pennsylvania and the Northeast. Comstock Publ. Assoc. Cornell Univ. Press, Ithaca, New York.
- Hunley, W.J. 2003. *Storeria dekayi dekayi* (Northern Brown Snake). Catesbeiana 23:17.
- Hunter, M.L., Jr., J. Albright, and J. Arbuckle (eds.). 1992. The Amphibians and Reptiles of Maine. Maine Agric. Exp. Sta. Univ. Maine, Orono.
- , A.J.K. Calhoun, and M. McCollough. 1999. Maine Amphibians and Reptiles, with All Species Found in Maine and Atlantic Canada and All Common Species Found Throughout New England. Univ. Maine Press, Orono.
- International Commission of Zoological Nomenclature. 1962. Opinion 632. *Regina* Baird and Girard, 1853 (Reptilia); designation of a type-species under the plenary powers. Bull. Zool. Nomen. 19: 145–147.
- Irwin, K.J. and W.B. Blihovde. 2001. Geographic distribution. *Storeria occipitomaculata* (Redbelly Snake). Herpetol. Rev. 32:61.
- Jackson, J.J. 1983. Snakes of the Southeastern United States. Univ. Georgia Coop. Ext. Serv., Athens.
- Johnson, R.M. 1964. The herpetofauna of the Oak Ridge area. ORNL (3653):v + 29 p.
- Johnson, T.R. 1987. The Amphibians and Reptiles of Missouri. Missouri Dept. Conserv., Jefferson City.
- Karges, J. P. 1978. Texas amphibians and reptiles: some new distributional records, part 1. Herpetol. Rev. 9:143–145.
- Kearney, M. and O. Rieppel. 2006. An investigation into the occurrence of plicidentine in the teeth of squamate reptiles. Copeia 2006: 337–350.
- Keegan, H.L. 1943. Three new ophidian lung mites of the subfamily Entonyssinae Ewing, 1922. Parasitology 35:128–133.
- Keiser, E.D., Jr. and L.D. Wilson. 1979. Checklist and key to the amphibians and reptiles of Louisiana. 2nd ed. Lafayette Nat. Hist. Mus. Bull. (1):1–49.
- Kelly, H.A. 1936. Snakes of Maryland. Nat. Hist. Soc. Maryland, Baltimore.
- Kilpatrick, E.S., T.A. Waldrop, J.D. Lanham, C.H. Greenberg, and T.H. Contreras. 2010. Short-term effects of fuel reduction treatments on herpetofauna from the southeastern United States. Forest Sci. 56:122–130.
- King, R. 1993. Determinants of offspring number and size in the Brown Snake, *Storeria dekayi*. J. Herpetol. 27:175–185.
- . 1997. Variation in Brown Snake (*Storeria dekayi*) morphology and scalation: sex, family, and microgeographic differences. J. Herpetol. 31:335–346.
- . 2002. Predicted and observed maximum prey size-snake size allometry. Funct. Ecol. 16:766–772.
- , T.D. Bittner, A. Queral-Regil, and J.H. Cline. 1999. Sexual dimorphism in neonate and adult snakes. J. Zool. Lond. 247:19–28.
- and R. Lawson. 2001. Patterns of population subdivision and gene flow in three sympatric natricine snakes. Copeia 2001:602–614.
- Kjoss, V.A. and J.A. Litvaitis. 2001a. Community structure of snakes in a human-dominated landscape. Biol. Conserv. 98:285–292.
- and —. 2001b. Comparison of 2 methods to sample snake communities in early successional habitats. Wildl. Soc. Bull. 29:153–157.
- Klippel, W. E. and P. W. Parmalee. 1982. The paleontology of Cheek Bend Cave. Phase II Rep. Tennessee Valley Auth.
- Krusling, P.J., E. Chapman, C. Johnson, B. King, C. Runyan, S. Scherder, C. Lorentz, J.W. Ferner, and J.P. Ferner. 2004. Geographic distribution. *Storeria occipitomaculata occipitomaculata* (Northern Red-bellied Snake). Herpetol. Rev. 35: 84.
- Krysko, K.L. and A.T. Reppas. 1998. Geographic distribution. *Storeria dekayi wrightorum* (Midland Brown Snake). Herpetol. Rev. 29:116.
- Lazcano, D.A., J. Banda, G. Castañeda, C. Garcia de la Peña, and C. Solis Rójas. 2006. Notes on Mexican herpetofauna 8: herpetofauna of the Parque Ecológico Chipinque, Nuevo León, Mexico. Bull. Chicago Herpetol. Soc. 41:117–123.
- Lee, D.S. 2005. Reptiles and amphibians introduced to the Bahamas; a potential conservation crisis. Bahamas J. Sci. 12:2–6.
- Lee, J.C. 1996. The Amphibians and Reptiles of the Yucatán Peninsula. Comstock Publ. Assoc., Cornell Univ. Press, Ithaca, New York.
- . 2000. A Field Guide to the Amphibians and Reptiles of the Maya World: The Lowlands of Mexico, Northern Guatemala, and Belize. Comstock Publ. Assoc., Cornell Univ. Press, Ithaca, New York.
- Lindquist, J.D. and E.D. Lindquist. 2006. Geographic distribution. *Storeria occipitomaculata* (Red-bellied Snake). Herpetol. Rev. 37:364.
- Liner, E.A. 1977. Letisimulation in *Storeria dekayi linnetes* Anderson. Trans. Kansas Acad. Sci. 80:81–82.
- . 1994. Scientific and common names for the amphibians and reptiles of Mexico in English and Spanish. SSAR Herpetol. Circ. (23):v + 113 p.
- . 2007. A checklist of the amphibians and reptiles of México. Occas. Pap. Mus. Nat. Sci. Louisiana St. Univ. (80):1–60.
- Linnaeus, C. 1758. Systema Naturae per Regna Tria Naturae, Secundum Classes, Ordines, Genera, Species, cum Characteribus, Differentiis, Synonymis, Locis, Editio Decima, Reformata Tomus. L. Salvii, Holmiae.
- Linzey, D.W. 1979. Snakes of Alabama. Strode Publ., Inc., Huntsville, Alabama.
- and M.J. Clifford. 1981. Snakes of Virginia. Univ. Press Virginia, Charlottesville.
- Logier, E.B.S. 1958. The Snakes of Ontario. Univ. Toronto Press, Toronto.
- and G.C. Toner. 1961. Check List of the Amphibians

- and Reptiles of Canada and Alaska. R. Ontario Mus., Toronto, Canada.
- Long, C.A., J.E. Long, and C.A. Long. 1987. A listing of known amphibians and reptiles from Washington Island, Lake Michigan, with new records of the Milk Snake and Red-bellied Snake. *Jack Pine Warbler* 65:39.
- Luhring, T.M. 2007. Reptiles and amphibians of Boy Scout Camp Linwood-Hayne: results from an undergraduate-initiated three year opportunistic inventory. *Georgia J. Sci.* 65: 104–111.
- Malaret, L. and H.S. Fitch. 1984. Effects of overfeeding and underfeeding on reproduction in four species of reptiles. p. 77–84. *In* V.L. Bels and A.P. Van den Sande (eds.), *Maintenance and reproduction of reptiles in captivity*. *Acta Zool. Pathol. Antverp.* 78:77–84.
- Marion, K.R. and G. Chandler. 1983. Life history notes. *Storeria dekayi wrightorum* (Midland Brown Snake). *Coloration. Herpetol. Rev.* 14:47.
- Martin, P.S. and B.E. Harrell. 1957. The Pleistocene history of temperate biotas in Mexico and eastern United States. *Ecology* 38:468–480.
- Martof, B.S. 1956. *Amphibians and Reptiles of Georgia. A Guide*. Univ. Georgia Press, Athens.
- , W.M. Palmer, J.R. Bailey, and J.R. Harrison, III. 1980. *Amphibians and Reptiles of the Carolinas and Virginia*. Univ. North Carolina Press, Chapel Hill.
- Marx, H. and G.B. Rabb. 1972. Phyletic analysis of fifty characters of advanced snakes. *Fieldiana Zool.* (63):1–321.
- McAllister, C.T. and L.R. Twilley. 2002. Geographic distribution. *Storeria dekayi texana* (Texas Brown-snake). *Herpetol. Rev.* 33:325.
- McCauley, R.H., Jr. 1945. *The Reptiles of Maryland and the District of Columbia*. Priv. printed, Hagerstown, Maryland.
- McCoy, C.J. 1982. Amphibians and reptiles in Pennsylvania. *Carnegie Mus. Nat. Hist. Spec. Publ.* (6):1–89.
- McKinstry, D.M. 1973. Blood parasites in snakes of northwestern Pennsylvania. *J. Parasitol.* 59:343.
- Mecham, J.S. 1982. New distributional information for some snakes in western Texas. *Texas J. Sci.* 34:191.
- Mendoza Quijano, F. 1990. Estudio herpetofaunístico en el transecto Zacualtipan-Zuquizo-Quipan-San Juan Mezitalan, Hidalgo. Thesis, Univ. Nac. Auto. Mexico, Escuel. Nac. Estud. Prof. Iztacala. Tlal-nepantala, Estado de Mexico.
- Mehrtens, J.M. 1987. *Living Snakes of the World in Color*. Sterling Publ. Co., Inc., New York.
- Meshaka, W.E., Jr. 1988. Geographic distribution. *Storeria dekayi wrightorum*. *Herpetol. Rev.* 19:21.
- . 1994. Clutch parameters of *Storeria dekayi* Holbrook (Serpentes: Colubridae) from southcentral Florida. *Brimleyana* (21):73–76.
- Meyers, J.M. and D.A. Pike. 2006. Herpetofaunal diversity of Alligator River National Wildlife Refuge, North Carolina. *Southeast. Nat.* 5:235–252.
- Michels, T.J. 1979. Further records of snakes in winter. *Bull. Philadelphia Herpetol. Soc.* 27:6.
- Mineau, P. and R. Markel. 1981. The 1979 spring bird migration and other vertebrates at Middle Island, Lake Erie. *Ontario Field Biol.* 35:13–21.
- Minnesota Herpetological Society. 1985. *Distribution Maps for Reptiles and Amphibians of Minnesota*. Minnesota Herpetol. Soc., Minneapolis.
- Minton, S.A., Jr. 1972. Amphibians and reptiles of Indiana. *Indiana Acad. Sci. Monogr.* (3):1–346.
- Mitchell, J.C. 1994. *The Reptiles of Virginia*. Smithsonian Inst. Press, Washington, D.C.
- . 1995. Amphibians and reptiles of Sugarland Run, Fairfax and Loudoun counties, Virginia: estimated numbers and commercial value. *Catesbeiana* 15: 15–22.
- and J.M. Anderson. 1994. Amphibians and reptiles of Assateague and Chincoteague Islands. *Virginia Mus. Nat. Hist. Spec. Publ.* (2):1–120.
- Moler, P.E. (ed.). 1992. *Rare and Endangered Biota of Florida. Vol. III. Amphibians and Reptiles*. Univ. Press Florida, Gainesville.
- Mount, R.H. 1975. *The Reptiles and Amphibians of Alabama*. Agric. Exp. Sta. Auburn Univ., Auburn, Alabama.
- Muenz, T.K. and L.L. Smith. 2005. Geographic distribution. *Storeria occipitomaculata* (Red-bellied Snake). *Herpetol. Rev.* 36:84.
- Murren, B. and B. Murren. 1980. A few notes on snake behavior. *Herp-Blurbs* 1(4):3–4.
- Noble, G.K. 1937. The sense organs involved in courtship of *Storeria*, *Thamnophis* and other snakes. *Bull. Amer. Mus. Nat. Hist.* 73:673–731.
- Olson, R.E. 1987. Minnesota herpetological records. *Bull. Maryland Herpetol. Soc.* 23:101–104.
- Palmer, W.M. and A.L. Braswell. 1995. *Reptiles of North Carolina*. Univ. North Carolina Press, Chapel Hill.
- Parsons, T.S. 1959. Studies on the comparative embryology of the reptilian nose. *Bull. Mus. Comp. Zool.* 120:101–277.
- Paton, P.W.C. 2005. A review of vertebrate community composition in seasonal forest pools of the northeastern United States. *Wetlands Ecol. Manag.* 13:235–246.
- Pauley, G.B. and J.M. Brown. 2005. Geographic distribution. *Storeria dekayi texana* (Texas Brown-snake). *Herpetol. Rev.* 36:84.
- Penak, B.L. 1982. Aspects of the Nutritional Ecology of the Red-shouldered Hawk (*Buteo lineatus lineatus*) in southwestern Quebec. M.S. Thesis, McGill Univ., Montreal, Quebec, Canada.
- Peters, J.A. and B. Orejas-Miranda, 1970. *Catalogue of the Neotropical Squamata Part I. Snakes*. U.S. Natl. Mus. Bull. (297):viii + 347 p.
- Petzing, J.E. 1994. Geographic distribution. *Storeria dekayi* (Brown Snake). *Herpetol. Rev.* 25:35.
- and C.A. Phillips. 1998. Geographic distribution. *Storeria dekayi* (Brown Snake). *Herpetol. Rev.* 29: 116.
- , M.H. Sabaj, and R. Doerschein. 1998. Geographic distribution. *Storeria dekayi* (Brown Snake). *Herpetol. Rev.* 29:55.
- Pewtress, R. 1981. The Brown and Red-bellied Snakes. Genus: *Storeria*. *Herpetile* 6:28–30.

- Ponce-Campos, P., S.M. Huerta-Ortega, A. Heinze-Yothers, and H.M. Smith. 2003. Range extensions and variational notes on some amphibians and reptiles of Jalisco and Michoacan, México. *Bull. Maryland Herpetol. Soc.* 39:1–7.
- Pope, C.H. 1964. Amphibians and Reptiles of the Chicago Area. *Chicago Nat. Hist. Mus.*
- Powell, R., J.T. Collins, and E.D. Hooper, Jr. 1998. A Key to the Amphibians and Reptiles of the Continental United States and Canada. Univ. Press Kansas, Lawrence.
- , –, and –. 2012. A Key to the Herpetofauna of the Continental United States and Canada. 2nd ed., revised and updated. Univ. Press Kansas, Lawrence.
- Preston, R.E. 1979. Late Pleistocene cold-blooded vertebrate faunas from the mid-continental United States, I. Reptilia; Testudines, Crocodilia. *Univ. Michigan Mus. Paleontol. Pap. Paleontol.* (19):1–53.
- Rahn, H. 1938. The corpus luteum of reptiles. *Anat. Rec.* 72:55.
- . 1939. Structure and function of placenta and corpus luteum in viviparous snakes. *Proc. Soc. Exp. Biol.* 40:381–382.
- . 1940. The physiology of gestation in viviparous snakes. *J. Colorado-Wyoming Acad. Sci.* 2:45–46.
- Ramsey, Z.D. and C.T. McAllister. 2004. Geographic distribution. *Storeria dekayi wrightorum* (Midland Brown Snake). *Herpetol. Rev.* 35:193.
- and –. 2005. Geographic distribution. *Storeria dekayi wrightorum* (Midland Brown Snake). *Herpetol. Rev.* 36:204.
- Rankin, J.S., Jr. 1945. An ecological study of the helminth parasites of amphibians and reptiles of western Massachusetts and vicinity. *J. Parasitol.* 31:142–150.
- Rau, M.E. and D.M. Gordon. 1980. Host specificity among the helminth parasites of four species of snakes. *Can. J. Zool.* 58:929–930.
- Reichenbach, N.G. and G.H. Dalrymple. 1981. Herpetological records from a relict prairie in Ohio. *Herpetol. Rev.* 12:15.
- Renkin, R.B. and D.K. Fantz. 2002. Immediate, landscape-scale impacts of even-aged and uneven-aged forest management on herpetofaunal communities of the Missouri Ozark Forest Ecosystem Project. *USFS Gen. Tech. Rep. NC 227*:171–182.
- Richmond, N.D. 1964. Fossil amphibians and reptiles from Frankstown Cave, Pennsylvania. *Ann. Carnegie Mus.* 36:225–228.
- Richards, R.L. and P.J. Munson. 1988. Flat-headed Peccary (*Platygonus*) and recovered Quaternary vertebrate fauna of Indun Rockshelter, Monroe County, Indiana. *Natl. Speleol. Soc.* 50:64–71.
- Robison, H.W. and J. Rader. 2005. Geographic distribution. *Storeria dekayi wrightorum* (Midland Brownsnake). *Herpetol. Rev.* 36:84.
- Roddy, H.J. 1928. Reptiles of Lancaster County and the State of Pennsylvania. Science Press, Lancaster, Pennsylvania.
- Ross, D.A. 1989. Amphibians and reptiles in the diets of North American raptors. *Wisconsin Endangered Resources Rep.* (59):1–33.
- Rossi, J. 1992. Snakes of the United States and Canada. Keeping Them Healthy in Captivity. Volume 1. Eastern Area. Krieger Publ. Co., Malabar, Florida.
- Rossman, D.A. and P.A. Myer. 1990. Behavioral and morphological adaptations for snail extraction in the North American Brown Snakes (genus *Storeria*). *J. Herpetol.* 24:434–438.
- Russell, D.A., F.J. Rich, V. Schneider, and J. Lynch-Stieglitz. 2009. A warm thermal enclave in the Late Pleistocene of the southeastern United States. *Biol. Rev.* 84:173–202.
- Saint Girons, H. 1985. Comparative data on lepidosaurian reproduction and some time tables, p. 35–58. *In* C. Gans and F. Billett (eds.) *Biology of the Reptilia*, Volume 15, Development B. John Wiley and Sons, New York.
- Sandridge, L.L. 1953. Food and dens of the Opossum (*Didelphis virginiana*) in northeastern Kansas. *Trans. Kansas Acad. Sci.* 56: 97–106.
- Saunders, J.J. 1977. Late Pleistocene vertebrates of the western Ozark highlands. *Illinois St. Mus. Rep. Invest.* (33):1–118.
- Say, T. 1825. Descriptions of three new species of *Coluber*, inhabiting the United States. *J. Acad. Nat. Sci. Philadelphia Ser. 1*, 4:237– 241.
- Scharf, W.C. and M.L. Jorae. 1980. Birds and land vertebrates of North Manitou Island. *Jack Pine Warbler* 58:4–15.
- Schluter, U. 1995. Braunnattern und Halsbandnattern im Terrarium. *DATZ* 49:36–38.
- Schmidt, C.J. 2004. *Storeria dekayi* (Brown Snake). *J. Kansas Herpetol.* 11:14.
- Schmidt, K.P. 1953. A Check List of North American Amphibians and Reptiles. 6th ed. ASIH, Chicago, Illinois.
- and D.D. Davis. 1941. *Field Book of Snakes of the United States and Canada*. G.P. Putnam's Sons, New York.
- and F.A. Shannon. 1947. Notes on amphibians and reptiles of Michoacan, Mexico. *Fieldiana Zool.* 31: 63–85.
- Schuett, G.W. and F. Kraus. 1981. Geographic distribution. *Serpentes. Storeria dekayi*. *Herpetol. Rev.* 12:14.
- Scudder, S.H. 1891–1982. David Humphreys Storer. *Proc. Amer. Acad. Arts Sci.* 27:388–391.
- Seigel, R.A. and H.S. Fitch. 1984. Ecological patterns of relative clutch mass in snakes. *Oecologia* 61: 293–301.
- Shaw, C.E. and S. Campbell. 1974. *Snakes of the American West*. Alfred A. Knopf, New York.
- Shine, R. 1992. Relative clutch mass and body shape in lizards and snakes: is reproductive investment constrained or optimized? *Evolution* 46:828–833.
- Shipman, P.A., S.F. Fox, R.E. Thill, J.P. Phelps, and D.M. Leslie, Jr. 2004. Reptile communities under diverse forest management in the Ouachita Mountains, Arkansas, p. 174–182. *In* J.M. Guldin (Tech. Compl.), *Ouachita and Ozark Mountains Symposium: Ecosystem Management Research*.

- USDA For. Serv., So. Res. Sta., Gen. Tech. Rep. (SRS-74), Asheville, North Carolina.
- Simpson, S.J. 1987. The Dekay's Snake (*Storeria dekayi dekayi*) with notes on reproductive biology and litter size. *Herpstile* 12:17–19.
- Skoczylas, R. 1978. Physiology of the digestive tract, p. 589–717. In C. Gans and K.A. Gans (eds.), *Biology of the Reptilia*, Volume 8, Physiology B. Academic Press, London.
- Smith, H.M. 1943. Summary of the collections of snakes and crocodilians made in Mexico under the Walter Rathbone Bacon Traveling Scholarship. *Proc. U.S. Natl. Mus.* 93:393–504.
- and E.D. Brodie, Jr. 1982. A Guide to Field Identification. *Reptiles of North America*. Golden Press, New York.
- and J.E. Huheey. 1961. Proposed use of the plenary powers to designate a type-specimen for *Regina* Baird and Girard, 1853 (Reptilia). *Z.N.(S.)* 1443. *Bull. Zool. Nomen.* 17:346–348.
- , D.A. Langebartel, and K. Williams. 1964. Herpetological type-specimens in the University of Illinois Museum of Natural History. *Illinois Biol. Monogr.* (32):1–80.
- and E.H. Taylor. 1950a. An annotated checklist and key to the snakes of Mexico. *U.S. Natl. Mus. Bull.* (187):iv + 239 p.
- and –. 1950b. Type localities of Mexican reptiles and amphibians. *Univ. Kansas Sci. Bull.* 33:313–380.
- and –. 1966. *Herpetology of Mexico*. Annotated Checklists and Keys to the Amphibians and Reptiles. A Reprint of Bulletins 187, 194 and 199 of the U.S. National Museum with a List of Subsequent Taxonomic Innovations. Eric Lundberg, Ashton, Maryland.
- Smith, T.G., S.H. Kopko, and S.S. Desser. 1996. Life cycle, morphological characteristics, and host specificity of *Hepatozoon* species infecting Eastern Garter Snakes from Ontario. *Can. J. Zool.* 74: 1850–1856.
- Smith, W.H. and L.J. Rissler. 2010. Quantifying disturbance in terrestrial communities: abundance–biomass comparisons of herpetofauna closely track forest succession. *Restoration Ecol.* 18: s195–s204.
- Snider, A.T. and J.K. Bowler. 1992. Longevity of reptiles and amphibians in North American collections. *SSAR Herpetol. Circ.* (21):iii + 40 p.
- Snyder, D.H. 1972. *Amphibians and Reptiles of Land Between the Lakes*. Tennessee Valley Auth., Clarksville.
- Stevenson, D. and D. Crowe. 1992. Geographic distribution. *Storeria dekayi victa* (Florida Brown Snake). *Herpetol. Rev.* 23:92.
- Storer, D.H. 1839. Reptiles of Massachusetts, p. 207–253. In G.B. Emerson (ed.), *Reports of the Fishes, Reptiles and Birds of Massachusetts*. Dutton and Wentworth State Printers, Boston.
- Stuart, L.C. 1948. The amphibians and reptiles of Alta Verapaz, Guatemala. *Misc. Publ. Mus. Zool. Univ. Michigan* (69):1–109.
- . 1950. A geographic study of the herpetofauna of Alta Verapaz, Guatemala. *Contrib. Lab. Vert. Biol. Univ. Michigan* (45):1–77.
- . 1954. Herpetofauna of the southeastern highlands of Guatemala. *Contrib. Lab. Vert. Biol. Univ. Michigan* (68):1–65.
- . 1963. A checklist of the herpetofauna of Guatemala. *Misc. Publ. Mus. Zool. Univ. Michigan* (122):1–150.
- Surface, H.A. 1906. The serpents of Pennsylvania. *Pennsylvania St. Dept. Agric. Monthly Bull.* (4): 133–208.
- Taggart, T.W. 2000. Biogeographic analysis of the reptiles (Squamata), in Ellis County, Kansas. *Kansas Herpetol. Soc. Newsl.* (121):7–16.
- Tanner, W.W. and G. Robison, Jr. 1960. New and unusual serpents from Chihuahua, Mexico. *Herpetologica* 16:67–70.
- Taylor, E.H. 1933. Notes on type specimens of reptiles and amphibians in the "Alfredo Dugès" Museum, Guanajuata, Mexico. *Copeia* 1933:97–98.
- . 1942. Mexican snakes of the genera *Adelophis* and *Storeria*. *Herpetologica* 2:75–79.
- . 1952. Third contribution to the herpetology of the Mexican state of San Luis Potosí. *Univ. Kansas Sci. Bull.* 34:793–815.
- and H.M. Smith. 1939. Miscellaneous notes on Mexican snakes. *Univ. Kansas Sci. Bull.* 25: 239–258.
- Taylor, R.J. 1970. Habitat Effects on Monthly Foods of Bullfrogs in Eastern Texas. M.S. Thesis, Stephen F. Austin St. Univ., Nacogdoches, Texas.
- Telfair, R.C., II. 1983. *The Cattle Egret: a Texas Focus and World View*. Kleberg Stud. Nat. Res. College Station, Texas A&M Univ. Agri. Exp. Sta.
- Tennant, A. 1984. *The Snakes of Texas*. Texas Monthly Press, Austin.
- . 1985. *A Field Guide to Texas Snakes*. Texas Monthly Press, Austin.
- . 1997. *A Field Guide to Snakes of Florida*. Gulf Publ. Co., Houston, Texas.
- . 1998. *A Field Guide to Texas Snakes*. 2nd ed. Gulf Publ. Co., Houston, Texas.
- and R.D. Bartlett. 2000. *Snakes of North America. Eastern and Central Regions*. Gulf Publ. Co., Houston, Texas.
- Tilley, S.G. and J.E. Huheey. 2001. Reptiles and Amphibians of the Smokies. *Great Smoky Mountains Nat. Hist. Assoc., Gatlinburg, Tennessee*.
- Toal, K.R. 1992. Geographic distribution. *Storeria dekayi* (Brown Snake). *Herpetol. Rev.* 23:92.
- Tobey, F.J. 1985. *Virginia's Amphibians and Reptiles: A Distributional Survey*. Virginia Herpetol. Soc., Purcellville.
- Townsend, J.H., K.L. Krysko, and S.A. Krueger. 2001. Geographic distribution. *Storeria occipitomaculata obscura* (Florida Red-belly Snake). *Herpetol. Rev.* 32:61.
- Trapido, H. 1940. Mating time and sperm viability in *Storeria*. *Copeia* 1940:107–108.
- . 1944. The snakes of the genus *Storeria*. *Amer. Midl. Nat.* 31:1–84.
- Trauth, S.E., H.W. Robison, and M.V. Plummer. 2004. *The Amphibians and Reptiles of Arkansas*. Univ.

- Arkansas Press, Fayetteville.
- Trutnau, L. 1986. Nonvenomous Snakes. Barron's Ed. Ser., New York.
- Tucker, J.K., J.B. Hatcher, and D.W. Soergel. 1994. Geographic distribution. *Storeria dekayi wrightorum* (Midland Brown Snake). Herpetol. Rev. 25: 35.
- , D.W. Soergel, and J.B. Hatcher. 1995. Flood-associated activities of some reptiles and amphibians at Carlyle Lake, Fayette County, Illinois. Trans. Illinois St. Acad. Sci. 88:73–81.
- and C.H. Theiling. 1994. Geographic distribution. *Storeria dekayi wrightorum* (Midland Brown Snake). Herpetol. Rev. 25:35.
- Turner, F.B. 1977. The dynamics of populations of squamates, crocodilians and rhynchocephalians, p. 157–264. In C. Gans and D.W. Tinkle (eds.), Biology of the Reptilia, Volume 7, Ecology and Behaviour A. Academic Press, London.
- Tyler, J.D. 1991. Vertebrate prey of the Loggerhead Shrike in Oklahoma. Proc. Oklahoma Acad. Sci. 71:17–20
- Uribe-Peña, Z., A. Ramírez-Bautista, and G. Casas Andreu. 1999. Anfibiós y reptiles de las serranías del Distrito Federal, México. Cuad. Inst. Biol. Univ. Nac. Auto. México (32):1–119.
- Vance, T. and M. Edwards. 1980. Geographic distribution. *Storeria dekayi texana*. Herpetol. Rev. 11: 39.
- Varkey, A. 1979. Comparative cranial myology of North American natricine snakes. Milwaukee Pub. Mus. Publ. Biol. Geol. (4):iv + 70 p.
- Vermersch, T.G. and R.E. Kuntz. 1986. Snakes of South Central Texas. Eakin Press, Austin, Texas.
- Viets, B.E. 1993. An annotated list of the herpetofauna of the F.B. and Rena G. Ross Natural History Reservation. Trans. Kansas Acad. Sci. 96:103–113.
- Vogt, R.C. 1981. Natural History of Amphibians and Reptiles of Wisconsin. Milwaukee Pub. Mus. Milwaukee.
- Volkman, A.W. 2003. Predation by a Ringneck Snake. J. Kansas Herpetol. 6:12.
- Wallach, V. 1998. The lungs of snakes, p. 92–296. In C. Gans and A.S. Gaunt (eds.), Biology of the Reptilia, Volume 19, Morphology G. SSAR, Chicago.
- Walley, H.D. 2001. Geographic distribution. *Storeria occipitomaculata* (Red-belly Snake). Herpetol. Rev. 32:125.
- Watermolen, D.J. 2000. Anomalous squamation on a Brown Snake (*Storeria dekayi*). Bull. Chicago Herpetol. Soc. 35:280.
- Walkins-Colwell, J.G. 2002. A partial albino Northern Red-bellied Snake from Vermont. Northeast. Nat. 9:221–224.
- Webb, R.G. 1982. Distributional records for Mexican snakes. Herpetol. Rev. 13:132.
- Weekly, J.M. and J.L. Haynes. 1992. Geographic distribution. *Storeria dekayi* (Brown Snake). Herpetol. Rev. 23:92.
- Werler, J.E. and J.R. Dixon. 2000. Texas Snakes. Identification, Distribution, and Natural History. Univ. Texas Press, Austin.
- Werner, F. 1929. Übersicht der Gattungen und Arten der Schlangen aus der Familie Colubridae. Zool. Jahrb. 57:1–196.
- Wheeler, G.C. and J. Wheeler. 1966. The Amphibians and Reptiles of North Dakota. Univ. North Dakota Press, Grand Forks.
- Williams, K.L. and V. Wallach. 1989. Snakes of the World Volume 1, Synopsis of Snake Generic Names. Krieger, Malabar, Florida.
- Willson, J.D. and M.E. Dorcas. 2004. Aspects of the ecology of small fossorial snakes in the western piedmont of North Carolina. Southeast. Nat. 3:1–12.
- Wilson, A.K. 1999. New Illinois amphibian and reptile distribution records from the Kaskaskia River drainage. Herpetol. Rev. 30:118–120.
- Wilson L.D. and J.R. Meyer. 1982. The Snakes of Honduras. Milwaukee Pub. Mus., Milwaukee, Wisconsin.
- and L. Porras. 1983. The ecological impact of man on the South Florida herpetofauna. Univ. Kansas Mus. Nat. Hist. Spec. Publ. (9): vi + 89 p.
- Wright, A.H. and A.A. Wright. 1957. Handbook of Snakes: Snakes of the United States and Canada. Comstock Publ. Assoc., Cornell Univ. Press, Ithaca, New York.
- Wusterbarth, T.L., R.B. King, M.R. Duvall, W.S. Grayburn, and G.M. Burghardt. 2010. Phylogenetically widespread multiple paternity in New World natricine snakes. Herpetol. Conserv. Biol. 5:86–93.
- Yaron, Z. 1985. Reptilian placentation and gestation: structure, function, and endocrine control, p. 527–603. In C. Gans and F. Billett (eds.), Biology of the Reptilia, Volume 15, Development B. John Wiley and Sons, New York.
- Yarrow, H.C. 1882. Check list of North American Reptilia and Batrachia, with catalogue of specimens in U.S. National Museum. Bull. U.S. Natl. Mus. (24): v + [i] + 249 p.
- Zug, G.R. and C.H. Ernst. 2004. Smithsonian Answer Book. Snakes. Smithsonian Books, Washington, D.C.

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