

## Catalogue of American Amphibians and Reptiles.

Ross, C.A. and C.H. Ernst. 1994. *Alligator mississippiensis*.

***Alligator mississippiensis* (Daudin)  
American Alligator**

*Crocodylus mississippiensis* Daudin, 1802:412. Type-locality, "les bords du Mississipi." Holotype, a mutilated hatchling collected by André Michaux, deposited in the Muséum National d'Histoire Naturelle, Paris. See Comments.

*Crocodylus lucius* Cuvier, 1807:28. Type-locality, "Mississipi". Syn-types collected by André Michaux and Peale (holotype of *Crocodylus mississippiensis* Daudin, 1802, selected as the lectotype by Mertens, 1956), deposited in the Muséum National d'Histoire Naturelle, Paris. See Comments.

*Crocodylus cuvieri* Leach, 1815:117. Type-locality, "Dauphine Island, South America," corrected to "Dauphin Island, Mobile Bay" [Alabama] by Boulenger, 1889:290. Holotype, British Museum (Natural History), a stuffed juvenile collected by Major DeBath. See Comments.

*Crocodylus ditropurus* Rafinesque, 1822:3. Type-locality, "United States." Holotype, undesignated.

*Alligator lucius*: Bory de Saint-Vincent, 1824, 5:100.

*Alligator cuvieri*: Bory de Saint-Vincent, 1824, 5:100.

*Champsia lucius*: Wagler, 1830:140.

*Crocodylus (Alligator) Lucius*: Gray, 1831a:21.

*Alligator mississippiensis*: Gray, 1831b:62. *Lapsus calami*.

*Alligator mississippiensis*: Holbrook, 1842:52. Emendation. First use of present combination. See Comments.

*Alligator belois* Cope, 1865:185. Type-locality, unknown. Holotype, subadult of 239 cm total length deposited in University Museum, Munich. See Comments.

*Alligator mississippiensis*: Gray, 1869:168.

*Alligator mississippiensis*: Vaillant, 1898:200.

*Alligator mississippiensis*: Stejneger and Barbour, 1917:41.

*Crocodylus porosus*: Barrett, 1950: plate opposite p. 12. Not *Crocodylus porosus* Schneider, 1801:159.

*Crocodylus porosus australis* Deraniyagala, 1953:34. Type-locality,

"Australian." Holotype, plate opposite p. 12 in Barrett (1950).

• **Content.** *Alligator mississippiensis* is a monotypic species.

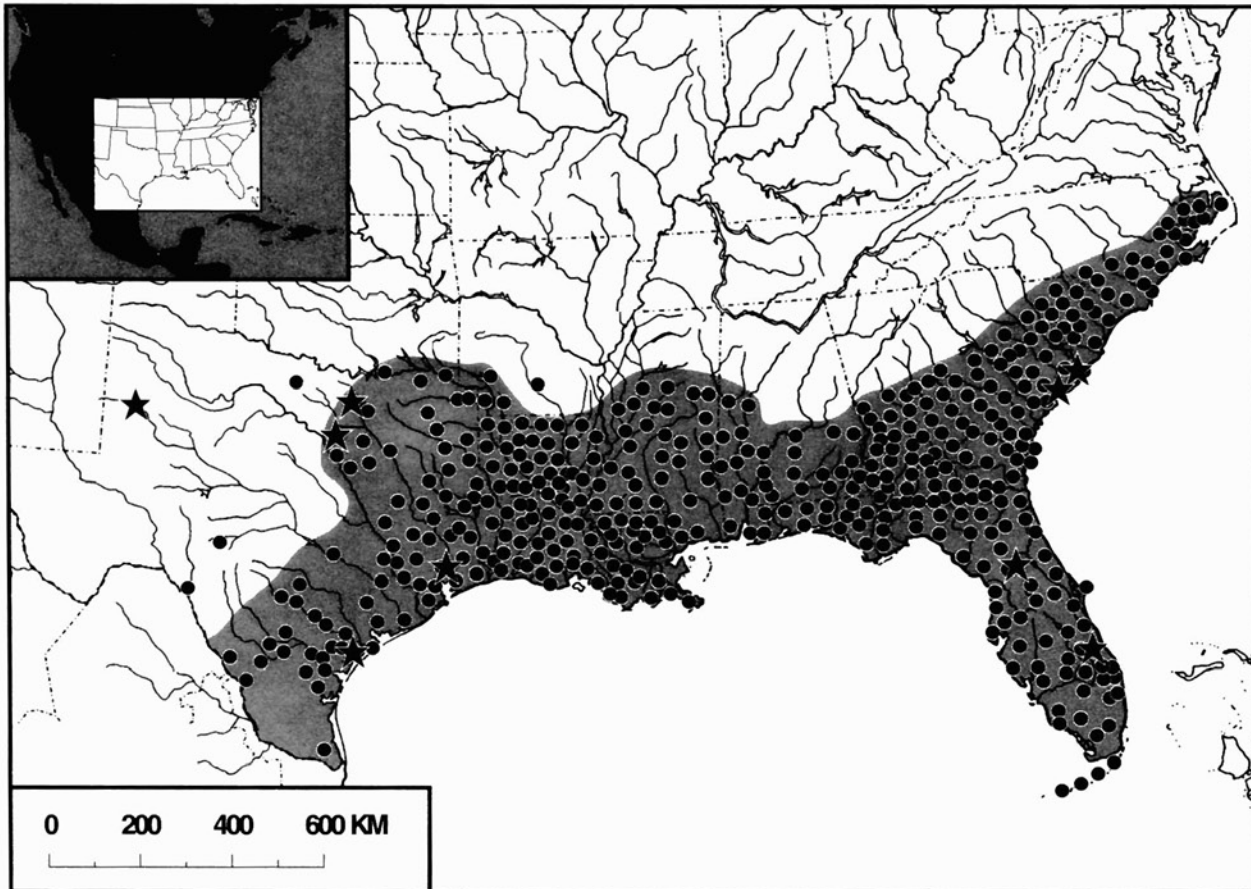
• **Definition.** *Alligator mississippiensis* is a palustrine crocodylian with a maximum body length near 5 m (record length 5.84 m; McIlhenny, 1935; followed by Conant and Collins, 1991) and with a broad (lateral borders nearly parallel), flat, anteriorly rounded snout, and a nearly parallel-sided cranial table. The nasal bones contact the premaxillae, and usually extend anteriorly as far as the external nares. If open, the supratemporal fenestra is small. Both the orbits and nostrils are elevated. Lateral margins of the basioccipital are expanded to form wing-shaped areas. The mandibular symphysis is relatively short, only reaching the level of the third, fourth, or, rarely, fifth mandibular teeth in large individuals. No contact occurs between the mandibular symphysis and the splenial bones. Teeth are thecodont and of irregular lengths (anisodont); five premaxillary, 14-15 maxillary, and 19-20 mandibular teeth are present on each side. Those on the lower jaw fit into pits inside the upper tooth row. Diagnostic scalation consists of 18 transverse dorsal rows of ossified scales in 4-8 (rarely nine) longitudinal rows at midbody, 29-38 transverse rows on the throat, and 27-35 (rarely 26) transverse rows on the venter. Two or three, low-keeled, postoccipital scales are present on the nape. The umbilical scar has a distinct "web-like" configuration. Both the front and hind toes are webbed; the hindlimbs are longer than the forelimbs.

Juveniles are black with 4-5 yellow crossbands on the body and 9-11 more on the tail. These light bands fade with age and exposure to sunlight. Adult pigmentation is more variable, but normally consists of uniform dark gray to black dorsally with a pale yellow or ivory venter. The iris is silver to light brown; the pupil is a vertical ellipse.

• **Descriptions.** General descriptions are in Behler and King (1979), Boulenger (1889), Cochran and Goin (1970), Conant and Collins (1991), and Smith and Brodie (1982). Other descriptions are as follows: comparative anatomy (Chiasson, 1962; Reese, 1915; Wettstein, 1954), embryology (Reese, 1915), skull (Iordansky, 1973; Kälin, 1933; Kent, 1975; Mook 1921a, 1921b, 1923a; Wake, 1979),



**Figure.** Disruptive coloration of juvenile *Alligator mississippiensis* in Aiken County, South Carolina. Photograph by David Scott, Savannah River Ecology Laboratory.



**Map.** Dots mark selected records; the type locality is too general to be mapped. Stars indicate fossil localities. The shaded area approximates the current natural distribution of the species.

skeleton (Mookerjee and Bhattacharya, 1948), hyoid apparatus (Wake, 1979), musculature (Bellairs and Shute, 1953; Guthe, 1981; Iordansky, 1964), brain (Schwab, 1979; Senn, 1979), ear (Wever, 1978), eye (Peterson, 1992; Prince, 1956; Walls, 1942), optic tectum (Ulinski et al., 1992), nasal cavity (Bellairs and Shute, 1953; Parsons, 1959), chemoreceptive organs (Weldon and Ferguson, 1993); urogenital system (Fox, 1977), digestive tract (Luppa, 1977; Parsons and Cameron, 1977), lymphatic system (Ottaviani and Tazzi, 1977), scutellation (Ross and Roberts, 1979), parts and derivatives (Wermuth and Fuchs, 1983b), scent glands (Bell, 1827; Mason, 1992), courtship (Carpenter and Ferguson, 1977), eggs (Ferguson, 1985; Packard and Packard, 1988; Reese, 1915), karyotype (Cohen and Clark, 1967; Cohen and Gans, 1970; Gilboa, 1975; Gorman, 1973; Makino, 1951; Matthey, 1947, 1949, 1954, 1970; Matthey and van Brink, 1957; Olmo, 1976; Risley, 1964), and locomotion (Gatesy, 1991).

• **Illustrations.** Color illustrations of adults are in Ashton and Ashton (1985), Conant and Collins (1991), Dundee and Rossman (1989), Martof et al. (1980), Reese (1915), Ross (1989), and Sievert and Sievert (1989); black and white photographs or drawings of adults are in Gibbons (1977), McIlhenny (1935, 1976), Mount (1975), Neill (1971), Reese (1915), Ross (1989), and Wermuth and Mertens (1961). Juveniles are illustrated in either color or black and white in Ashton and Ashton (1985), Conant and Collins (1991), McIlhenny (1935, 1976), Reese (1915) and Ross (1989). Various aspects of the eggs are illustrated in Ferguson (1985), McIlhenny (1935, 1976), Packard and Packard (1988), Reese (1915), and Wettstein (1954), and embryonic development is shown by Ferguson (1985) and Reese (1915). Other illustrations are as follows: various aspects of comparative anatomy (Chiasson, 1962; Reese, 1915; Wettstein, 1954), skull (Alderton, 1991; Bellairs and Kamal, 1981; Iordansky, 1973; Kent, 1975; Mook, 1921a, 1921b; Schumacher, 1973; Wermuth and Fuchs, 1983a; Wermuth and Mertens, 1961), vertebrae and other bones (Brühl, 1862; Enlow, 1969; Haines, 1969; Hoffstetter and Gasc, 1969), head structures (Weldon and Ferguson, 1993), musculature (Schumacher, 1973), epidermis and osteoderms (Maderson, 1985; Neill, 1971), scutellation (Neill,

1971; Ross and Mayer, 1983), cloacal and gular glands (Mason, 1992), digestive tract (Parsons and Cameron, 1977), taste buds (Neill, 1971; Weldon and Ferguson, 1993), salivary glands (Kochva, 1978), teeth (Edmund, 1969; Shimada et al., 1992), pancreas (Miller and Lagios, 1970), bile acids (Skoczylas, 1978), kidney (Dantzler, 1976), heart (White, 1976), ectopia cordis (Elsej et al., 1994), adrenal gland (Gabe, 1970), nervous system (Senn, 1979; ten Donkelaar and Bangma, 1992), ear (Wever, 1978), eye (Prince, 1956; Underwood, 1970; Walls, 1942), optic tectum (Ulinski et al., 1992), nasal cavity (Parsons, 1959, 1970), sperm (Kashinsky et al., 1987), growth (Magnusson et al., 1989), courtship (Lang, 1989a; Neill, 1971), nests (Ashton and Ashton, 1985; Grenard, 1991; Neill, 1971), habitat (Neill, 1971; Alcalá and Dy-Liacco, 1989), overwinter behavior (Brisbin, 1989a), vocalizations (Grenard, 1991; Lang, 1989a), roadkill (Knutson, 1987), and karyotype (Cohen and Clark, 1967; Cohen and Gans, 1970). Glasgow (1991) presents reproductions of historic illustrations.

• **Distribution.** In general, the historic distribution follows the Atlantic coastal plain from northeastern North Carolina (Albemarle Sound) to the Florida Keys and westward to the Río Grande River in southeastern Texas. Inland, the distribution follows numerous rivers into southern Arkansas (Hempstead, Lafayette, and Miller counties) and southeastern Oklahoma (McCurtain County). Within the bulk of the range, locality records are too numerous to list. State distribution summaries are: Alabama, Mount (1975); Arkansas, Dowling (1957); Florida, Ashton and Ashton (1985); Louisiana, Dundee and Rossman (1989); Mississippi, Cook (1942); North Carolina, O'Brien and Doerr (1986), Palmer and Braswell (1977); Oklahoma, Blair (1950), Sievert and Sievert (1989), Webb (1970); South Carolina, Bara (1971); and Texas, Dixon (1987), Johnson et al. (1985), Potter (1981). Joanen (1974) presented county records from throughout the species range.

Peripheral records (mapped) include: Arkansas, the Arkansas River (Schultz, 1810), Arakdelphia, Clark County (Dowling, 1957), and the confluence of the Mississippi and White rivers, Desha County (Ashe, 1808); Florida, Key West and Big Pine Key (Allen and Slatten, 1945), Cape Sable (McIntosh, 1935), Little Pine and Summerland keys

(Fowler, 1906), Monroe County and Paradise Key, Collier County (Safford, 1919); Georgia, coastal islands (Johnson et al., 1974), Sapelo Island, McIntosh County (Martof, 1963), and St. Simon's Island, Glynn County (Conant and Downs, 1940); North Carolina, Goldsboro, Wayne County and Kittyhawk, Currituck County (Louder, 1965); Oklahoma, Rock Creek, a tributary of Little River, 11.3 km east of Eagletown, McCurtain County (Blair, 1950), and Denison Dam, Lake Texoma (Hibbard, 1960); Texas, Brownsville, Cameron County (Baird, 1859), and the Rio Grande River, 32.2 km south of Ft. Clark, Kinney County (Mearns, 1907). Questionable records include: Memphis, Shelby County, Tennessee (Rhoads, 1896); Norman (South Canadian River), Oklahoma (Lane, 1909); and Wichita (Arkansas River), Kansas (Cragin, 1885).

The species historic distribution at the northern and southern extremes of its range are problematic, and early accounts are open to interpretation. Neill (1971) argued for the correlation of alligator-related names of localities with early distribution records, including Alligator Sink, Dismal Swamp, Virginia. The alligator's historic occurrence in the Lake Drummond area of Dismal Swamp, Suffolk [City] and Nansemond County, Virginia, is generally assumed (Martof et al., 1980), but lacks verifiable records. Early accounts by Smyth (1784) and Byrd (1841) refer to a more southern occurrence than southeastern Virginia. The occurrence of the species in Mexico is also problematic. Specimens in European museums with locality data of "Mexico" (Boettger, 1893; Garman, 1884; Müller, 1865) may antedate the independence of Texas from Mexico in 1848. Smith and Smith (1977) and Neill (1971) discussed the possible inhabitation of northeastern Mexico. Records from the Rio Grande River (Cope, 1887; Mearns, 1907) make occurrence in adjacent Mexico likely, although undocumented.

• **Fossil Record.** Pleistocene remains are known from Marion and St. Lucie counties, Florida (Weigel, 1962; Holman, 1959a, 1959b); Ashley River (Hay, 1923) and Edisto Island, Charleston County, South Carolina (Roth and Laerm, 1980); and Dallas, Harris, Lubbock, McLennan, and San Patricio counties, Texas (Holman, 1969; Lundelius, 1972). Malone (1979) considered the fossil species *Alligatorbomsoni* Mook, 1923a (Middle Miocene, Sioux County, Nebraska), and *A. mefferdi* Mook, 1946 (Middle Pliocene, Cherry County, Nebraska) to be conspecific with *A. mississippiensis*, but Steel (1989) treated these taxa as distinct species. Steel (1973) published the most recent summary of the fossil history of *A. mississippiensis*. A number of Pleistocene and Pliocene records identified solely to the genus *Alligator* may be referable to this species.

• **Pertinent Literature.** The literature concerning *Alligator mississippiensis* is extensive, and most published prior to 1985 was referenced in Brisbin et al. (1986). Therefore we have concentrated on articles published after 1985, and also generally ignored literature dealing solely with management and/or conservation unless biologically significant data are included. General accounts are in Alderton (1991), Ashton and Ashton (1985), Avault (1985), Brimley (1942), Carr (1967), Caulfield (1966), Dobie (1986), Elliott (1935), Fogarty and Campbell (1978), Gibbons (1977), Hagstrom (1991), Hornaday (1875), Hutt (1964, 1967), Martin (1989), McIlhenny (1935, 1976), Mechling (1987), Neill (1971), Reese (1915), and Smith and Smith (1977). Other papers are listed by topic as follows: evolution (Coldiron, 1974; deJong et al., 1985; Densmore and White, 1991; Dessauer, 1970; Kashinsky et al., 1987; Meyer, 1984; Mo, 1993; Murphy and Crabtree, 1985; Norell, 1989; Palmer and Guillette, 1992); genetics (Mo et al., 1988; Menzies, 1991); karyotype (Cohen and Clark, 1967; Cohen and Gans, 1970; Gilboa, 1975; Gilboa and Dowling, 1972; Gorman, 1973; Makino, 1951; Matthey, 1947, 1949, 1954, 1970; Matthey and van Brink, 1957; Olmo, 1976; Risley, 1964), protein electrophoresis (Baril et al., 1961; Dessauer, 1970); systematics (Densmore and White, 1991; King and Burke, 1989; Malone, 1979); zoogeography (Darlington, 1957; Sill, 1968; Taplin and Grigg, 1989); morphology (Austin, 1989a; Bell, 1827; Bellairs and Kamal, 1981; Busbey, 1989; Currey and Alexander, 1985; Enlow, 1969; Forbes, 1937, 1938a, 1938b, 1938c, 1939, 1940b, 1940c; Fox, 1977; Frey, 1988; Gabe, 1970; Giles, 1948; Goslawski and Pietraki, 1989; Guthe, 1981; Haines, 1969; Iordansky, 1964, 1973; Kalin, 1933; Kent, 1975; Kochva, 1978; Maderson, 1985; Miller and Lagios, 1970; Mook, 1921a, 1921b, 1923a, 1923b; Mookerjee and Bhattacharya, 1948; Muller and Alberch, 1990; Nicholls and Russell, 1985; Ottaviani and Tazzi, 1977; Parsons, 1959, 1970; Platel, 1979; Rathke, 1866; Rhoten, 1985; Roberts et al., 1988; Romer, 1956; Sato et al., 1992; Schumacher, 1973; Schwab, 1979; Shah and Ferguson, 1988; Shimada et al., 1990; ten Donkelaar and

Nieuwenhuys, 1979; Wake, 1979; Weldon and Ferguson, 1993; Wettstein, 1937, 1954; Wink and Elsey, 1986; Wink et al., 1987; Zhang, 1988); teeth (Dauphin, 1987, 1991; Edmund, 1962, 1969; Sato and Shimada, 1990; Shimada et al., 1992; Westergaard, 1988; Westergaard and Ferguson, 1986, 1987, 1990); growth (Andrews, 1982; Brandt, 1991b; Brisbin, 1990; Dodson, 1975; Elsey et al., 1990a, 1992; Jacobsen and Kushlan, 1989; Jennings et al., 1991; Joanen et al., 1987; Kercheval and Little, 1990; Rootes et al., 1991; Watson, 1986); development (Austin, 1990; Deeming and Ferguson, 1989a, 1990a, 1991c; Ferguson, 1985, 1989; Frey, 1988; Joss, 1989; Klembara, 1991; Lang, 1989b; Murray et al., 1990; Noble et al., 1990, 1991; Packard and Packard, 1988, 1989; Raynaud and Pieau, 1985; Schulte and Chabreck, 1990; Senn, 1979; ten Donkelaar and Bangma, 1992; Thompson, 1989; Westergaard, 1988; Westergaard and Ferguson, 1986, 1987); histology (Luppa, 1977; Shah and Ferguson, 1988; Shimada et al., 1990; Stillman et al., 1991; Takagi et al., 1989; Weldon and Sampson, 1987, 1988); physiological study methods (McDonald, 1976; Tracy, 1982); biochemistry (Bell and Lopez, 1985; Coulson et al., 1989; Coulson and Hernandez, 1964, 1986; Dessauer, 1970; Henninger and Beresford, 1990; Kashinsky et al., 1987; Kihira et al., 1987; Lindberg and White, 1986; Reiner, 1992; Stapel et al., 1985); metabolism (Bennett, 1982; Bennett and Dawson, 1976; Gatten et al., 1991; Jewell et al., 1989; Lauren, 1985; Lewis and Gatten, 1985; Phelps and Gatten, 1991; Thompson, 1989); acid-base balance (Howell and Rahn, 1976); circulatory system (Blackford, 1956; Dill and Edwards, 1935; Douse and Mitchell, 1991; Duguay, 1970; Elsey et al., 1990a, 1990b; Hopping, 1923; Huggins et al., 1969; Jacobson et al., 1988; Kutsche and van Mierop, 1988; Mathieu-Costello, 1988; Schnek et al., 1984; Shelton and Jones, 1991; Weber and White, 1986; White, 1976; Zhang, 1988); renal function and osmoregulation (Bogert and Cowles, 1947; Dantzler, 1976; Dunson and Mazzotti, 1988; Ellis and Evans, 1984; Hernandez and Coulson, 1952, 1957; Hopping, 1923; Mazzotti and Dunson, 1984, 1989; Minnich, 1982; Seymour, 1982; Taplin et al., 1982; Ventura et al., 1989); neurology (Belekhova, 1979; Berger and Burnstock, 1979; deRoos et al., 1989; Reiner, 1992; Shemer et al., 1987; Stillman et al., 1991; Strain et al., 1987; ten Donkelaar and Bangma, 1992; ten Donkelaar and Nieuwenhuys, 1979; Weldon and Ferguson, 1993; Wink et al., 1989); eye (Detwiler, 1943; Peterson, 1992; Prince, 1956; Reperant et al., 1992; Walls, 1942); optic tectum (Uliński et al., 1992); ear (Campbell, 1973; Evans and Fuchs, 1987; Fuchs and Evans, 1988; Wever, 1978); ventilation (Bickler et al., 1985; Burton, 1986; Huggins et al., 1969; Powell and Gray, 1989; Wood and Lenfant, 1976); diving (Anderson, 1963; Seymour, 1982); immunology (Cooper et al., 1985); digestion (Coulson, 1985; Coulson and Coulson, 1986; Coulson et al., 1987, 1990; Martinez del Rio and Stevens, 1988; Skoczylas, 1978; Smith and Campbell, 1987); endocrinology (Austin, 1989a, 1989b; Dubois and Guillette, 1992; Duvall et al., 1982; Elsey et al., 1990b, 1991; Elsey and Wink, 1986; Ho et al., 1987; Lance and Elsey, 1986; Lance and Vliet, 1987; Lance et al., 1985; Lovejoy et al., 1991; Rhoten, 1985; Shemer et al., 1987; Silldorff and Stephens, 1992a, 1992b; Underwood, 1992; Whittier and Tokarz, 1992; Yamada et al., 1987); behavior (Hornaday, 1914; Brewster, 1983); learning (Burghardt, 1977; Gossette and Hombach, 1969; Weldon and McNease, 1991); endogenous rhythms (Underwood, 1992), social behavior (Carpenter and Ferguson, 1977; Glasgow, 1991; Hunt, 1990a; Kilham, 1985; Lang, 1989a, Vliet, 1986, 1989; Warwick, 1990); vocalizations (Campbell, 1973; Herzog and Burghardt, 1977; Lang, 1989a); chemical signals and gland secretions (Halpern, 1992; Mason, 1992; Weldon and Sampson, 1987, 1988; Weldon et al., 1987, 1988, 1990a, 1990b); sex identification (Brazaitis, 1968); sex determination (Bull et al., 1988; Chabreck, 1973; Deeming and Ferguson, 1988, 1989b, 1991a; Elgar and Crozier, 1988; Haig, 1991; Joss, 1989; Lance and Bogart, 1991; Lang, 1989b; Paukstis and Janzen, 1990); sexual cycles (Austin, 1989a; Duvall et al., 1982; Ho et al., 1987; Lance, 1985, 1989; Lance and Elsey, 1986; Lance and Vliet, 1987; Lance et al., 1985; Whittier and Tokarz, 1992; Wink et al., 1987); sperm (Kashinsky et al., 1987); courtship behavior (Carpenter and Ferguson, 1977; Garrick, 1975; Garrick et al., 1978; Jones and Hayes-Odum, 1990; Lang, 1989a; Mason, 1992); eggs (Abrams et al., 1989; Astheimer et al., 1989; Booth and Thompson, 1991; Conant and Downs, 1940; Deeming and Ferguson, 1990b, 1991a, 1991b; Fitch, 1985; Hayes-Odum et al., 1993; Kushlan and Jacobsen, 1990; Magnusson et al., 1989; McDonald and Taylor, 1988; Moses and Chabreck, 1991; Noble et al., 1990; Packard and Packard, 1988; Rose et al., 1990; Taylor et al., 1991; ter Borg, 1986; Wink and Elsey, 1986; Wink et al., 1990a, 1990b; Woodward et al., 1989); nesting (Chabreck, 1973; Goodwin and Marion, 1977; Hall, 1991; Hall and Meier, 1993; Hayes-Odum et al., 1993, 1994; Herzog, 1975; Huang and Watanabe, 1986; Hunt, 1989, 1990b; Hunt and

Ogden, 1991; Jackson, 1989; Joanen and McNease, 1989b; Magnusson et al., 1985, 1989; Platt et al., 1990a; Ruckel and Steele, 1984; Wrublik et al., 1992; parental care (Herzog, 1975; Hunt, 1987; Shine, 1988); hatchlings (Congdon and Gibbons, 1989; Fischer et al., 1991); sexual dimorphism (Fitch, 1981); habitat (Ashton and Ashton, 1985; Craighead, 1968; Goin, 1943; Jacobsen and Kushlan, 1986a, 1986b; Kushlan and Jacobsen, 1990; Tamarack, 1989); role in community (Craighead, 1968; Epstein et al., 1983); populations (Abercrombie, 1989; Brandt, 1991a, Carbonneau and Chabreck, 1990; Elsey et al., 1990b, Hall, 1991; Joanen, 1974; Joanen and McNease, 1986, 1989a, 1990a; Meyer, 1987; O'Brien, 1990; O'Brien and Doerr, 1986; Platt et al., 1990a; Taylor, 1989; Taylor et al., 1991; Turner, 1977); sex ratios (Forbes, 1940a; Rootes and Chabreck, 1992); survivorship and longevity (Glasgow, 1991; Hutton, 1986; Jennings et al., 1991; Snider and Bowler, 1992; Woodward et al., 1987); management (Brisbin et al., 1990; Brisbin and McDonald, 1989; David, 1990; de Buffrenil, 1984; Demeter, 1989; Dierenfeld, 1989; Dufaure, 1985; Erickson, 1987, 1990; Heinroth, 1941; Hines et al., 1986; Jackson, 1987; Jacobsen and Kushlan, 1986a, 1986b; Joanen et al., 1984; Laycock, 1987; Little, 1990; McDaniel and Hord, 1990; Moody and Corell, 1981; Prindle, 1988; Staton et al., 1989, 1990a, 1990b, 1990c, 1990d; Taylor, 1984; Thompson et al., 1984; Warwick, 1990; Webb et al., 1987; Yu and Tung, 1987, 1988, 1989); thermal relationships (Avery, 1982; Bartholomew, 1982; Brandt and Mazzotti, 1990; Campos, 1964; Chabreck, 1973; Colbert et al., 1946; Coulson and Coulson, 1986; Coulson et al., 1990; Deeming and Ferguson, 1988, 1989a, 1989b; Douse and Mitchell, 1991; Douse et al., 1989; Firth and Turner, 1982; Fish and Cosgrove, 1987; Gibbons and Sharitz, 1974; Gregory, 1982; Gucwinski et al., 1972; Hernandez and Coulson, 1952, 1957; Joanen and McNease, 1990b; Joanen et al., 1987; Magnusson et al., 1985; Phelps and Gatten, 1991; Strain et al., 1987; Turner and Tracy, 1985; Weber and White, 1986; Wood et al., 1985); feeding habits (Banta et al., 1992; Brisbin et al., 1990; Busbey, 1989; Chabreck, 1972; Delany, 1986, 1987, 1990; Delany and Abercrombie, 1986; Delany, et al., 1988b; Dierenfeld, 1989; Epstein et al., 1983; Fogarty and Albury, 1968; Jackson et al., 1974; Jones and Hayes-Odum, 1990; Palis, 1989; Platt and Brantley, 1991; Platt et al., 1990b; Reid and Bonde, 1990; Rootes and Chabreck, 1993; Scott and Weldon, 1990; Shoop and Ruckdeschel, 1990; Staton et al., 1989; Tamarack, 1989; Taylor, 1986; Weldon and McNease, 1991; Weldon et al., 1992; Wolfe et al., 1987); cannibalism (Rootes and Chabreck, 1993); gastroliths (Brazaitis, 1969); movements (Chabreck, 1965; Gatten et al., 1991; Joanen, 1974; Taylor, 1984; Turner et al., 1985); navigation (Rodda, 1984a, 1984b, 1985; Rodda and Phillips, 1992); diseases and parasites (Boyce, 1985; Brantley and Platt, 1991; Byrd and Reiber, 1942; Foreyt et al., 1985; Frelief et al., 1985; Goslawski and Pietrak, 1989; McAllister and Upton, 1990; Moreland et al., 1989; Novak and Seigel, 1986; Overstreet et al., 1985); contamination (Brisbin, 1989b; Delany et al., 1988a; Heinz et al., 1991; Hord et al., 1990); pharmacology (Brisbin, 1966); scale patterns (Brazaitis, 1974; King and Brazaitis, 1971; Ross and Mayer, 1983; Ross and Roberts, 1979; color anomalies (Allen and Neill, 1956; Glasgow, 1991; Hensley, 1959).

• **Etymology.** The specific name *mississippiensis* is a noun in genitive case referring to the type-locality, the Mississippi River.

• **Comments.** The specimen collected by Michaux is generally considered the holotype of *Crocodylus mississippiensis* Daudin, 1802, as it was the only specimen available to him at that time. However, Daudin (1802:412) realized that his *mississippiensis* was conspecific with crocodilians reported earlier by LaCoudreniere, Bartram, and Catesby. Some workers might infer his inclusion of these other works as indicating a syntypic series. In either case, Vaillant (1898:201) effectively fixed the Michaux specimen as the primary type of *mississippiensis* Daudin by referring to it as "Le type primitive."

The Michaux and Peale specimens were apparently never catalogued into the collections of the Muséum National d'Histoire Naturelle, Paris, and are evidently missing (Vaillant, 1898). Mertens (1956) designated the Michaux specimen as the lectotype of *C. lucius* Cuvier, 1807, making the name *lucius* a junior objective synonym of *C. mississippiensis* Daudin, 1802.

The juvenile stuffed specimen in the British Museum (Natural History) listed by Boulenger (1889:290) as the holotype of *C. cuvieri* Leach, 1815, does not match the measurements given in the type description (Andrew F. Stimson, *in litt.*).

The specific name *mississippiensis*, as used by Daudin, 1802, was officially emended under the Plenary Powers of the International Commission on Zoological Nomenclature to the spelling

*mississippiensis* with two "p's" in the third syllable (Hemming, 1957, 1958a, 1958b; Oliver, 1957).

The holotype of *Alligator belois* Cope, 1865 cannot be located in either the Zoologische Staatssammlung des Bayerischen Staates, München, or, the Zoological Institute of the Munich University (Ulrich Gruber, *in litt.*).

The specific name *Lacerta alligator* Blumenbach, 1779:263 was supposedly based on a composite syntype series that included *Alligator mississippiensis*. However, Blumenbach's (1779) description was vague, and the figure to which he later referred (1799:233, plate 106 in Seba, 1734) is "entirely unidentifiable" (Stejneger, 1933). As a result, the name *Lacerta alligator* Blumenbach, 1779 is considered a *nomen dubium* by a ruling of the International Commission on Zoological Nomenclature (see discussion in Hemming, 1956).

*Alligator mississippiensis* is protected under both state and federal regulations. The species is now federally listed as threatened. Populations had declined to low levels, then recovered rapidly while the species was protected under the United States' Endangered Species Act. Populations have increased to the level that some states now allow regulated harvesting. Also, farming and international trade are monitored by CITES.

#### Literature Cited

- Abercrombie, C.L., III. 1989. Population dynamics of the American alligator, p. 1-16. *In* Crocodiles, their ecology, management, and conservation. Proceedings of the 8th working meeting of IUCN/SSC Crocodile Specialist Group. IUCN, Gland, Switzerland.
- Abrams, V.A.M., L. Bush, T. Kennedy, R.W. Shreiber, Jr., T.A. Sherwood, and H.B. White, III. 1989. Vitamin transport proteins in alligator eggs. *Comp. Biochem. Physiol.* 93B:291-297.
- Alcala, A.C. and M.T.S. Dy-Liaco. 1989. Habitats, p. 136-153. *In* C.A. Ross (ed.), *Crocodiles and alligators. Facts on File*, New York.
- Alderton, D. 1991. *Crocodiles & alligators of the world*. Blandford Publ., London.
- Allen, E.R. and W.T. Neill. 1956. Some color abnormalities in crocodilians. *Copeia* 1956:124.
- and R. Slatten. 1945. A herpetological collection from the vicinity of Key West, Florida. *Herpetologica* 3:25-26.
- Andersen, H.T. 1963. Physiological adjustments to prolonged diving in the American alligator *Alligator mississippiensis*. *Contr. Scripps Inst. Oceanogr. n. ser.* 32:1087-1109.
- Andrews, R.M. 1982. Patterns of growth in reptiles, p. 273-320. *In* C. Gans and F.H. Pough (eds.), *Biology of the Reptilia, physiology D*, vol. 13. Academic Press, New York.
- Ashe, T. 1808. *Travels in America, performed in 1806, for the purpose of exploring the rivers Alleghany, Monongahela, Ohio, and Mississippi, and ascertaining the produce and condition of their banks and vicinity*. William Sawyer & Co., Newburyport, England.
- Ashton, R.E., Jr. and P.S. Ashton. 1985. *Handbook of reptiles and amphibians of Florida. Part 2. Lizards, turtles & crocodilians*. Windward Publ., Inc., Miami, Florida.
- Astheimer, L.B., S.C. Manolis, and C.R. Grau. 1989. Egg formation in crocodiles: avian affinities in yolk deposition. *Copeia* 1989:221-224.
- Austin, H.B. 1989a. Mullerian-duct regression in the American alligator (*Alligator mississippiensis*): its morphology and its testicular induction. *J. Exp. Zool.* 251:329-338.
- 1989b. The effects of estradiol and testosterone on Müllerian-duct regression in the American alligator (*Alligator mississippiensis*). *Gen. Comp. Endocrinol.* 76:461-472.
- 1990. An investigation of the ontogeny of the Müllerian duct regressor as well as the sensitive period in the American alligator, p. 1-2. *In* *Crocodiles. Proceedings of the 10th working meeting of IUCN/SSC Crocodile Specialist Group. Vol. 1. IUCN, Gland, Switzerland.*
- Avault, J.W., Jr. 1985. The alligator story. *Aquaculture* 11:41-44.
- Avery, R. 1982. Field studies of body temperatures and thermoregulation, p. 93-166. *In* C. Gans and F.H. Pough (eds.), *Biology of the Reptilia, physiology C*, vol. 12. Academic Press, New York.
- Baird, S.F. 1859. Reptiles of the boundary. In report of the United States and Mexican Boundary Survey, U.S. 34th Congress 1st Session, Exec. Doc. 108, vol. 2, pt. 2:1-35.
- Banta, M.R., T. Joanen, and P.J. Weldon. 1992. Foraging responses by the American alligator to meat extracts, p. 413-417. *In* R.L. Doty and D. Muller-Schwarze (eds.), *Chemical signals in vertebrates*

- VI. Plenum Press, New York.
- Bara, M.O. 1971. Alligator research project. Annual progress report for period Aug. 1970-Dec. 1971. South Carolina Wildl. Mar. Res. Dept., Columbia.
- Baril, E.F., J.L. Palmer, and A.H. Bartel. 1961. Electrophoretic analysis of young alligator serum. *Science* 133:278-279.
- Barrett, C.L. 1950. Reptiles of Australia: crocodiles, snakes and lizards. Cassell and Co., Melbourne.
- Bartholomew, G.A. 1982. Physiological control of body temperature, p. 167-211. *In* C. Gans and F.H. Pough (eds.), *Biology of the Reptilia, physiology C*, vol. 12. Academic Press, New York.
- Behler, J.L. and F.W. King. 1979. The Audubon Society field guide to North American reptiles and amphibians. Alfred A. Knopf, New York.
- Belekhova, M.G. 1979. Neurophysiology of the forebrain, p. 287-359. *In* C. Gans, R.G. Northcutt, and P. Ulinski (eds.), *Biology of the Reptilia, neurology B*, vol. 10. Academic Press, New York.
- Bell, J.U. and J.M. Lopez. 1985. Isolation and partial characterization of a cadmium-binding protein from the liver of alligators exposed to cadmium. *Comp. Biochem. Physiol.* 82C:123-128.
- Bell, T. 1827. On the structure and use of the submaxillary odoriferous gland in the genus *Crocodilus*. *Phil. Trans. Roy. Soc. London* 2: 32-138.
- Bellairs, A. d'A. and A.M. Kamal. 1981. The chondrocranium and the development of the skull in Recent reptiles, p. 1-263. *In* C. Gans and T.S. Parsons (eds.), *Biology of the Reptilia, morphology F*, vol. 11. Academic Press, New York.
- and C.C.D. Shute. 1953. Observations on the narial musculature of Crocodilia and its innervation from the sympathetic system. *J. Anat.* 87:367-378.
- Bennett, A.F. 1982. The energetics of reptilian activity, p. 155-199. *In* C. Gans and F.H. Pough (eds.), *Biology of the Reptilia, physiology D*, vol. 13. Academic Press, New York.
- and W.R. Dawson. 1976. Metabolism, p. 127-223. *In* C. Gans and W.R. Dawson (eds.), *Biology of the Reptilia, physiology A*, vol. 5. Academic Press, London.
- Berger, P.J. and G. Burnstock. 1979. Autonomic nervous system, p. 1-57. *In* C. Gans, R.G. Northcutt, and P. Ulinski (eds.), *Biology of the Reptilia, neurology B*, vol. 10. Academic Press, New York.
- Bickler, P.E., R.G. Spragg, M.T. Hartman, and F.N. White. 1985. Distribution of ventilation in American alligator *Alligator mississippiensis*. *Amer. J. Physiol.* 249:R477-R481.
- Blackford, L.M. 1956. The heart and electrocardiogram of an alligator. *Circulation* 14:1114-1116.
- Blair, A.P. 1950. The alligator in Oklahoma. *Copeia* 1950:57.
- Blumenbach, J.F. 1779-80. *Handbuch der Naturgeschichte*. 2 vol. Dieterich, Göttingen.
- Boettger, O. 1893. *Katalog der Reptilien-Sammlung im Museum der Senckenbergischen Naturforschenden Gesellschaft in Frankfurt am Main*. I. Teil (Rhynchocephalen, Schildkröten, Krokodile, Eidechsen, Chamäleons). Gebrüder Knauer, Frankfurt.
- Bogert, C.M. and R.B. Cowles. 1947. Moisture loss in relation to habitat selection in some Floridian reptiles. *Amer. Mus. Nov.* (1358):1-34.
- Booth, D.T. and M.B. Thompson. 1991. A comparison of reptilian eggs with those of megapode birds, p. 325-344. *In* D.C. Deeming and M.W.J. Ferguson (eds.), *Egg incubation: its effects on embryonic development in birds and reptiles*. Cambridge Univ. Press, New York.
- Bory de Saint-Vincent, J.B.G.M. 1824. *Encyclopédie Méthodique, ou par ordre de Matières; par une Société de Gens de Lettres, de Savants et d'Artistes... précédé d'un Vocabulaire universel, etc. Histoire naturelle des Zoophytes, ou Animaux Rayonnées*. Vol. 5. Liège, Paris.
- Boulenger, G.A. 1889. *Catalogue of the chelonians, rhynchocephalians, and crocodiles in the British Museum (Natural History)*. The Trustees (Brit. Mus., Nat. Hist.), London.
- Boyce, W.M. 1985. The prevalence of *Sebekia mississippiensis* (Pentastomidae) in American alligators (*Alligator mississippiensis*) in north Florida and experimental infection of parasitic hosts. *Proc. Helminthol. Soc. Washington* 52:278-282.
- Brandt, L.A. 1991a. Long-term changes in a population of *Alligator mississippiensis*. *J. Herpetol.* 25:419-424.
- 1991b. Growth of juvenile alligators in Par Pond, Savannah River Site, South Carolina. *Copeia* 1991:1123-1129.
- and F.J. Mazzotti. 1990. The behavior of juvenile *Alligator mississippiensis* and *Caiman crocodilus* exposed to low temperature. *Copeia* 1990:867-871.
- Brantley, C.G. and S.G. Platt. 1991. Salinity correlations of the leech *Placobdella multilineata* on alligators. *Herpetol. Rev.* 22:4-5.
- Brazaitis, P. 1968. The determination of sex in living crocodylians. *British J. Herpetol.* 4:54-58.
- 1969. The occurrence and ingestion of gastroliths in two captive crocodylians. *Herpetologica* 25:63-64.
- 1974. The identification of living crocodylians. *Zoologica (N.Y.)* 58:59-101.
- Brewster, K.N. 1983. Behavioral notes on *Alligator mississippiensis* and *Caiman crocodilus*. *Bull. Chicago Herpetol. Soc.* 18:7-11.
- Brimley, H.H. 1942. Alligators and crocodiles, 'gator hunting in North Carolina. *North Carolina Wildl. Cons.* 6(4):8-11; 6(5):5-8,14.
- Brisbin, I.L., Jr. 1966. Reactions of the American alligator to several immobilizing drugs. *Copeia* 1966:129-130.
- 1989a. Out in the cold, p. 50. *In* C.A. Ross (ed.), *Crocodylians and alligators*. Facts on File, New York.
- 1989b. Radiocesium levels in a population of American alligators: a model for the study of environmental contaminants in free-living crocodylians, p. 60-73. *In* *Crocodylians: their ecology, management and conservation*. Proceedings of the 8th working meeting of the IUCN/SSC Crocodile Specialist Group. IUCN, Gland, Switzerland.
- 1990. Growth curve analyses and their application to the conservation and captive management of crocodylians, p. 116-145. *In* *Crocodylians*. Proceedings of the 9th working meeting of the IUCN/SSC Crocodile Specialist Group. Vol. 1. IUCN, Gland, Switzerland.
- , C.D. McCreedy, H.S. Zippler, and M.A. Staton. 1990. Extended maintenance of American alligators on a dry formulated ration, p. 16-31. *In* *Crocodylians*. Proceedings of the 10th working meeting of the IUCN/SSC Crocodile Specialist Group. Vol. 1. IUCN, Gland, Switzerland.
- and M.A. McDonald. 1989. Genetic patterns and the conservation of crocodylians: a review of strategies and options, p. 156-168. *In* *Crocodylians: their ecology, management and conservation*. Proceedings of the 8th working meeting of the IUCN/SSC Crocodile Specialist Group. IUCN, Gland, Switzerland.
- , C.A. Ross, M.C. Downes, M.A. Staton, and B.R. Gammon. 1986. A bibliography of the American alligator (*Alligator mississippiensis*). Publ. SRO-NERP-13, Savannah River Natl. Environ. Res. Pk., Aiken, South Carolina.
- Brühl, C.B. 1862. *Icones ad zootomiam illustradam. Das Skelet der Krokodilinen dargestellt in zwanzig Tafeln zur Erleichterung des Selbststudiums: sämtlich nach der Natur gezeichnet, in Zink gestochen und erläutert*. Wilhelm Bräuml, Wien.
- Bull, J.J., W.H.N. Gutzke, and D. Crews. 1988. Sex reversal by estradiol in three reptilian orders. *Gen. Comp. Endocr.* 70:425-428.
- Burghardt, G. 1977. Learning processes in reptiles, p. 555-681. *In* C. Gans and D.W. Tinkle (eds.), *Biology of the Reptilia, ecology and behaviour A*, vol. 7. Academic Press, New York.
- Burton, R.F. 1986. The role of imidazole ionization in the control of breathing. *Comp. Biochem. Physiol.* 83A:333-336.
- Busbey, A.B., III. 1989. Form and function of the feeding apparatus of *Alligator mississippiensis*. *J. Morphol.* 202:99-127.
- Byrd, E.E. and R.J. Reiber. 1942. Strigeid trematodes of the alligator with remarks on the prostate gland and terminal portions of the genital ducts. *J. Parasitol.* 28:51-73.
- Byrd, W.K. 1841. The Westover manuscripts containing the history of the dividing line betwixt Virginia and North Carolina; a journey to the land of Eden, A.D. 1733: and a progress to the mines. written from 1728 to 1736, and now first published by William Byrd... E. and J.C. Ruffin, Petersburg, Virginia.
- Campbell, H.W. 1973. Observations on the acoustic behavior of crocodylians. *Zoologica (N.Y.)* 58:1-11.
- Campos, V.M. 1964. Efecto de los cambios de temperatura sobre las frecuencias cardiaca y respiratoria del lagarto (*Alligator mississippiensis*). *Rev. Biol. Trop.* 12:49-57.
- Carbonneau, D.A. and R.H. Chabreck. 1990. Population size, composition, and recruitment of American alligators in freshwater marsh, p. 32-40. *In* *Crocodylians*. Proceedings of the 10th working meeting of the IUCN/SSC Crocodile Specialist Group. Vol. 1. IUCN, Gland, Switzerland.
- Carpenter, C.C. and G.W. Ferguson. 1977. Variation and evolution of stereotyped behavior in reptiles, p. 335-554. *In* C. Gans and D.W. Tinkle (eds.), *Biology of the Reptilia, ecology and behaviour A*, vol. 7. Academic Press, New York.
- Carr, A. 1967. Alligators, dragons in distress. *Natl. Geogr.* 131:132-148.
- Caulfield, P. 1966. Alligator. *Nat. Hist.* 75(9):52-55.

- Chabreck, R.H. 1965. The movement of alligators in Louisiana. Proc. Ann. Conf. Southeast. Assoc. Fish and Wildl. Agencies 19:102-110.
- . 1972. The foods and feeding habits of alligators from fresh and saline environments in Louisiana. Proc. Ann. Conf. Southeast. Assoc. Fish and Wildl. Agencies 25:117-124.
- . 1973. Temperature variation in nests of the American alligator. *Herpetologica* 29:48-51.
- Chiasson, R.B. 1962. Laboratory anatomy of the alligator. Wm. C. Brown, Dubuque, Iowa.
- Cochran, D.M. and C.J. Goin. 1970. The new field book of reptiles and amphibians. G.P. Putnam's Sons, New York.
- Cohen, M.M. and H.F. Clark. 1967. The somatic chromosomes of five crocodylian species. *Cytogenetics* 6:193-203.
- and C. Gans. 1970. The chromosomes of the order Crocodylia. *Cytogenetics* 9:81-105.
- Colbert, E.H., R.B. Cowles, and C.M. Bogert. 1946. Temperature tolerances in the American alligator and their bearing on the habits, evolution, and extinction of the dinosaurs. *Bull. Amer. Mus. Nat. Hist.* 86:327-374.
- Coldiron, R.W. 1974. Possible functions of ornament in labyrinthodont amphibians. *Occ. Pap. Mus. Nat. Hist., Univ. Kansas* (33):1-19.
- Conant, R. and J.T. Collins. 1991. A field guide to reptiles and amphibians: eastern and central North America. 3rd ed. Houghton Mifflin, Boston, Massachusetts.
- and A. Downs, Jr. 1940. Miscellaneous notes on the eggs and young of reptiles. *Zoologica* (N.Y.) 25:33-48.
- Congdon, J.D. and J.W. Gibbons. 1989. Posthatching yolk reserves in hatchling American alligators. *Herpetologica* 45:305-309.
- Cook, F.A. 1942. Alligator and lizards of Mississippi. *Bull. Mississippi St. Game Fish Comm., Pittman-Robertson Proj. Mississippi* 3-R. Jackson.
- Cooper, E.L., A.E. Klempau, and A.G. Zapata. 1985. Reptilian immunity, p. 599-678. *In* C. Gans, F. Billett, and P.F.A. Maderson (eds.), *Biology of the Reptilia, development A*, vol. 14. John Wiley & Sons, New York.
- Cope, E.D. 1865. Third contribution to the herpetology of tropical America. *Proc. Acad. Nat. Sci. Philadelphia* 17:185-198.
- . 1887. Catalogue of batrachians and reptiles of Central America and Mexico. *Bull. U.S. Natl. Mus.* (32):1-98.
- Coulson, R.A. 1985. Delayed protein digestion in the alligator following carbonic anhydrase inhibition. *Comp. Biochem. Physiol.* 82A:43-47.
- and T.D. Coulson. 1986. Effect of temperature on the rates of digestion, amino acid absorption and assimilation in the alligator. *Comp. Biochem. Physiol.* 83A:585-588.
- , —, and J.D. Herbert. 1990. How do digestion and assimilation rates in alligators vary with temperature? *Comp. Biochem. Physiol.* 96A:441-449.
- , —, —, and M. A. Staton. 1987. Protein nutrition in the alligator. *Comp. Biochem. Physiol.* 87A:449-459.
- , J.D. Herbert, and T.D. Coulson. 1989. Biochemistry and physiology of alligator metabolism in vivo. *Amer. Zool.* 29:921-934.
- and T. Hernandez. 1964. *Biochemistry of the alligator*. Louisiana State Univ. Press, Baton Rouge.
- and —. 1986. Decreased oxygen consumption after catecholamine induced glycolysis in the alligator. *Comp. Biochem. Physiol.* 84A:673-676.
- Cragin, F.W. 1885. Editorial notes. *Bull. Washburn Coll. Lab. Nat. Hist.* 1:111.
- Craighead, F.C. 1968. The role of the alligator in shaping plant communities and maintaining wildlife in the southern Everglades. *Florida Nat.* 41:2-7, 69-74, 94.
- Currey, J.D. and R.McN. Alexander. 1985. The thickness of the walls of the tubular bones. *J. Zool. (London) A.* 206:453-468.
- Cuvier, G. 1807. Sur les différentes espèces de crocodiles vivans et sur leurs caractères distinctifs. *Ann. Natl. Mus. Hist. Nat. Paris* 10: 8-66.
- Dantzer, 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, physiology A*, vol. 5. Academic Press, London.
- Darlington, P.J., Jr. 1957. *Zoogeography: the geographical distribution of animals*. John Wiley & Sons, New York.
- Daudin, F.M. 1802. *Histoire naturelle, générale et particulière des reptiles*, vol. 2. F. Dufart, Paris.
- Dauphin, Y. 1987. Implications of preparation processes on the interpretation of reptilian enamel structure. *Palaeontology* 61:331-337.
- . 1991. Chemical composition of reptilian teeth — 2. Implications for paleodiets. *Palaenontographica* 29A:97-105.
- David, D. 1990. Florida's alligator management program, p. 196-205. *In* Crocodiles. Proceedings of the 9th working meeting of the IUCN/SSC Crocodile Specialist Group. Vol. 1. IUCN, Gland, Switzerland.
- de Buffrenil, V. 1984. Espèces menacées et exploitées dans le monde. Guide pratique pour leur connaissance et leur identification. 27. Les crocodilens. *Inv. Faune Flore* 24:1-39.
- Deeming, D.C. and M.W.J. Ferguson. 1988. Environmental regulation of sex determination in reptiles. *Phil. Trans. Royal Soc. London B. Biol. Sci.* 322:19-39.
- and —. 1989a. Effects of incubation temperature on growth and development of embryos of *Alligator mississippiensis*. *J. Comp. Physiol.* 159B:183-193.
- and —. 1989b. The mechanism of temperature dependent sex determination in crocodylians: a hypothesis. *Amer. Zool.* 29: 973-985.
- and —. 1990a. Morphometric analysis of embryonic development in *Alligator mississippiensis*, *Crocodylus johnstoni*, and *Crocodylus porosus*. *J. Zool. (London)* 221:419-439.
- and —. 1990b. Methods for the determination of the physical characteristics of eggs of *Alligator mississippiensis*: a comparison with other crocodylian and avian eggs. *Herpetol. J.* 1:458-462.
- and —. 1991a. Reduction in eggshell conductance to respiratory gases has no effect on sex determination in *Alligator mississippiensis*. *Copeia* 1991:240-243.
- and —. 1991b. Partitioning of water within the alligator (*Alligator mississippiensis*) egg after 60 days of incubation. *Herpetol. J.* 1:554-558.
- and —. 1991c. Egg turning during incubation has no effect upon the growth of embryos of *Alligator mississippiensis*. *Acta Zool. (Oxford)* 72:125-128.
- deJong, W.W., A. Zweers, M. Versteeg, H.C. Dessauer, and M. Goodman. 1985. Alpha-crystallin A sequences of *Alligator mississippiensis* and the lizard *Tupinambis tequixin*: molecular evolution and reptilian phylogeny. *Mol. Biol. Evol.* 2:484-493.
- Delany, M.F. 1986. Bird bands recovered from American alligator stomachs in Florida. *N. Amer. Bird Band.* 11:92-94.
- . 1987. What do alligators eat? *Florida Wildl.* 41(6):7-8.
- . 1990. Late summer diet of juvenile American alligators. *J. Herpetol.* 24:176-184.
- and C.L. Abercrombie. 1986. American alligator food habits in northcentral Florida. *J. Wildl. Mgmt.* 50:348-353.
- , J.U. Bell, and S.F. Sundlof. 1988a. Concentrations of contaminants in muscle of the American alligator in Florida. *J. Wildl. Dis.* 24:62-66.
- , A.R. Woodward, and I. H. Kochel. 1988b. Nuisance alligator food habits in Florida. *Florida Field Nat.* 16:90-96.
- Demeter, B. 1989. *Herpetological husbandry for the naturalist*. Privately printed, Tacoma Park, Maryland.
- Densmore, L.D., III. and P.S. White. 1991. The systematics and evolution of the Crocodylia as suggested by restriction endonuclease analysis of mitochondrial and nuclear ribosomal DNA. *Copeia* 1991:602-615.
- Deraniyagala, P.E.P. 1953. A colored atlas of some vertebrates from Ceylon. Vol. 2. Tetrapod Reptilia. Ceylon Govt. Press.
- deRoos, R., R.P. Rumpf, and M.W. Berry. 1989. Evidence that somatic and sympathetic nervous system neurotransmitters, not circulating epinephrine, mediate the immediate responses to a sudden threat in the American alligator (*Alligator mississippiensis*). *J. Exp. Zool.* 250:1-10.
- Dessauer, H.C. 1970. Biochemistry of reptiles: physiological and evolutionary aspects, p. 1-72. *In* C. Gans and T.S. Parsons (eds.), *Biology of the Reptilia, morphology C*, vol. 3. Academic Press, London.
- Detwiler, S.R. 1943. *Vertebrate photoreceptors*. Macmillan Co., New York.
- Dierenfeld, E.S. 1989. Vitamine E deficiency in zoo reptiles, birds and ungulates. *J. Zool. Wildl. Med.* 20:3-11.
- Dill, M.A. and H.T. Edwards. 1935. Properties of reptilian blood: IV. The alligator (*Alligator mississippiensis* Daudin). *J. Cell. Comp. Physiol.* 6:243-254.
- Dixon, J.R. 1987. Amphibians and reptiles of Texas with keys, taxonomic synopses, bibliography, and distribution maps. *Texas A*

- & M Press, College Station.
- Dobie, J.L. 1986. American alligator, p. 45-46. *In* R. Mount (ed.), Vertebrate animals of Alabama in need of special attention. Alabama Agr. Exp. Sta., Auburn.
- Dodson, P. 1975. Functional and ecological significance of relative growth in Alligator. *J. Zool.* (London) 175:315-355.
- Douse, M.A. and G.S. Mitchell. 1991. Time course of temperature effects on arterial acid-base status in *Alligator mississippiensis*. *Resp. Physiol.* 83:87-102.
- , F.L. Powell, W.K. Milsom, and G.S. Mitchell. 1989. Temperature effects on pulmonary receptor responses to airway pressure and CO<sub>2</sub> in *Alligator mississippiensis*. *Resp. Physiol.* 78:331-344.
- Dowling, H.G. 1957. A review of amphibians and reptiles of Arkansas. *Occ. Pap. Univ. Arkansas Mus.* (3):1-51.
- Dubois, D.H. and L.J. Guillette, Jr. 1992. Secretion of prostaglandin F<sub>2</sub> alpha and E<sub>2</sub> in vitro by the uterus of the American alligator (*Alligator mississippiensis*). *J. Exp. Zool.* 264:253-260.
- Dufaure, J.-P. 1985. L'exploitation de l'alligator du Mississippi aux Etats-Unis. *Ann. Scient. Univ. Clermont* (83):1-19.
- Duguy, R. 1970. Numbers of blood cells and their variation, p. 93-109. *In* C. Gans and T.S. Parsons (eds.), *Biology of the Reptilia, morphology C*, vol. 3. Academic Press, London.
- Dundee, H.A. and D.A. Rossman. 1989. The amphibians and reptiles of Louisiana. Louisiana State Univ. Press, Baton Rouge.
- Dunson, W.A. and F.J. Mazzotti. 1988. Some aspects of water and sodium exchange of freshwater crocodilians in fresh water and sea-water: role of the integument. *Comp. Biochem. Physiol.* 90A:391-396.
- Duvall, D., L.J. Guillette, Jr., and R.E. Jones. 1982. Environmental control of reptilian reproductive cycles, p. 201-231. *In* C. Gans and F.H. Pough (eds.), *Biology of the Reptilia, physiology D*, vol. 13. Academic Press, New York.
- Edmund, A.G. 1962. Sequence and rate of tooth replacement in the Crocodylia. *Contr. Life Sci. Div. Royal Ontario Mus., Univ. Toronto* (56):1-42.
- . 1969. Dentition, p. 117-200. *In* C. Gans, A. d'A. Bellairs, and T.S. Parsons (eds.), *Biology of the Reptilia, morphology A*, vol. 1. Academic Press, London.
- Elgar, M.A. and R.H. Crozier. 1988. Environment and sex determination in alligators. *Trends Ecol. Evol.* 3:59-60.
- Elliott, C.N. 1935. Alligators of Georgia. *Nat. Hist.* 5:416-425.
- Ellis, T.M. and D.H. Evans. 1984. Sodium balance in the American alligator. *J. Exp. Zool.* 231:325-329.
- Elsley, R.M., T. Joanen, L. McNease, and N. Kinler. 1992. Growth rates and body condition factors of *Alligator mississippiensis* in coastal Louisiana wetlands: a comparison of wild and farm-released juveniles. *Comp. Biochem. Physiol.* 103A:667-672.
- , ———, and ———. 1994. Ectopia cordis in hatchling *Alligator mississippiensis*. *Herpetol. Rev.* 25:114-115.
- , ———, and V. Lance. 1990a. Growth rate and plasma corticosterone levels in juvenile alligators maintained at different stocking densities. *J. Exp. Zool.* 255:30-36.
- , ———, and ———. 1990b. Stress and plasma corticosterone levels in the American alligator - relationship with stocking density and nesting success. *Comp. Biochem. Physiol.* 95A:55-63.
- , V.A. Lance, T. Joanen, and L. McNease. 1991. Acute stress suppresses plasma estradiol levels in female alligators (*Alligator mississippiensis*). *Comp. Biochem. Physiol.* 100A:649-651.
- and C.S. Wink. 1986. The effects of estradiol on plasma calcium and femoral bone structure in alligators (*Alligator mississippiensis*). *Comp. Biochem. Physiol.* 84A:107-110.
- Enlow, D.H. 1969. The bone of reptiles, p. 45-80. *In* C. Gans, A. D'A. Bellairs, and T.S. Parsons (eds.), *Biology of the Reptilia, morphology A*, vol. 1. Academic Press, London.
- Epstein, M.B., G.A. Feldhamer, and R.L. Joyner. 1983. Predation on white-tailed deer fawns by bobcats, foxes, and alligators: predator assessment. *Proc. Ann. Conf. Southeast. Assoc. Fish and Wildl. Agencies* 37:161-172.
- Erickson, A.E. 1987. Observations on the reproduction of the American alligator (*Alligator mississippiensis*) in captivity. *British Herpetol. Soc. Bull.* (21-22):54-56.
- . 1990. Breeding of the American alligator (*Alligator mississippiensis*) in the Southern Hemisphere. *British Herpetol. Soc. Bull.* (32):24-27.
- Evans, M.G. and P.A. Fuchs. 1987. Tetrodotoxin-sensitive, voltage-dependent sodium currents in hair cells from the alligator cochlea. *Biophys. J.* 52:649-652.
- Ferguson, M.W.J. 1985. Reproductive biology and embryology of the crocodilians, p. 329-491. *In* C. Gans, F. Billett, and P.F.A. Maderon (eds.), *Biology of the Reptilia, development A*, vol. 14. John Wiley & Sons, New York.
- . 1989. Birth defects in American alligators, p. 98. *In* C.A. Ross (ed.), *Crocodyles and alligators. Facts on File*, New York.
- Firth, B.T. and J.S. Turner. 1982. Sensory, neural, and hormonal aspects of thermoregulation, p. 213-274. *In* C. Gans and F.H. Pough (eds.), *Biology of the Reptilia, physiology C*, vol. 12. Academic Press, New York.
- Fischer, R.V., F.J. Mazzotti, J.D. Congdon, and R.E. Gatten, Jr. 1991. Post-hatching yolk reserves: parental investment in American alligators from Louisiana. *J. Herpetol.* 25:253-256.
- Fish, F.E. and L.A. Cosgrove. 1987. Behavioral thermoregulation of small American alligators in water: postural changes in relation to the thermal environment. *Copeia* 1987:804-807.
- Fitch, H.S. 1981. Sexual size differences in reptiles. *Univ. Kansas Mus. Nat. Hist., Misc. Publ.* (70):1-72.
- . 1985. Variation in clutch and litter size in New World reptiles. *Univ. Kansas Mus. Nat. Hist., Misc. Publ.* (76):1-76.
- Fogarty, M.J. and J.D. Albury. 1968. Late summer foods of young alligators in Florida. *Proc. Southeast. Assoc. Game & Fish. Comm. Conf.* 21:220-222.
- and H. W. Campbell. 1978. Species of special concern: American alligator, *Alligator mississippiensis* (Daudin), p. 65-67. *In* R.W. McDiarmid (ed.), *Rare and endangered biota of Florida*, vol. 3. Amphibians and reptiles. University Press of Florida, Gainesville.
- Forbes, T.R. 1937. Studies on the reproductive system of the alligator. I. The effects of prolonged injections of pituitary whole gland extract in the immature alligator. *Anat. Rec.* 70:113-137.
- . 1938a. Administration of oesterone to young alligators. *Science* 87:282-283.
- . 1938b. Studies on the reproductive system of the alligator. II. The effects of prolonged injections of oestrone in the immature alligator. *J. Exp. Zool.* 78:335-367.
- . 1938c. Studies on the reproductive system of the alligator. III. The action of testosterone on the accessory sex structures of recently hatched female alligators. *Anat. Rec.* 72:87-95.
- . 1939. Studies on the reproductive system of the alligator. V. The effects of injections of testosterone propionate in immature alligators. *Anat. Rec.* 75:51-57.
- . 1940a. A note on reptilian sex ratios. *Copeia* 1940:132.
- . 1940b. Studies on the reproductive system of the alligator. IV. Observations on the development of the gonad, the adrenal cortex and the Müllerian duct. *Contrib. Embryol.* 174. Carnegie Inst. Washington 28:131-157.
- . 1940c. Studies on the reproductive system of the alligator. VI. Further observations on heterosexual structures in the female alligator. *Anat. Rec.* 77:343-365.
- Foreyt, W.J., C.W. Leathers, and E.N. Smith. 1985. *Trichoderma* sp. infection in the alligator (*Alligator mississippiensis*). *J. Herpetol.* 19:530-531.
- Fowler, H.W. 1906. Some cold-blooded vertebrates of the Florida Keys. *Proc. Acad. Nat. Sci. Philadelphia.* 58:77-113.
- Fox, H. 1977. The urogenital system of reptiles, p. 1-157. *In* C. Gans and T.S. Parsons (eds.), *Biology of the Reptilia, morphology E*, vol. 6. Academic Press, London.
- Frelief, P.F., L. Sigler, and P.E. Nelson. 1985. Mycotic pneumonia caused by *Fusarium moniliforme* in an alligator. *Sabouraudia* 23:399-402.
- Frey, E. 1988. Anatomie des Körperstammes von *Alligator mississippiensis* Daudin. *Stuttg. Beitr. Naturkd. Ser. A. (Biol.)* (424):1-106.
- Fuchs, P.A. and M.G. Evans. 1988. Voltage oscillations and ionic conductances in hair cells isolated from alligator cochlea. *J. Comp. Physiol.* 164A:151-163.
- Gabe, M. 1970. The adrenal, p. 263-318. *In* C. Gans and T.S. Parsons (eds.), *Biology of the Reptilia, morphology C*, vol. 3. Academic Press, London.
- Garman, S. 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.
- Garrick, L.D. 1975. Love among the alligators. *Anim. Kingdom.* 78:2-8.
- , J.W. Lang, and H.A. Herzog, Jr. 1978. Social signals of adult American alligators. *Bull. Amer. Mus. Nat. Hist.* 160:153-192.
- Gatesy, S.M. 1991. Hind limb movements of the American alligator (*Alligator mississippiensis*) and postural grades. *J. Zool.* (London) 224:577-588.
- Gatten, R.E., J.D. Congdon, F.J. Mazzotti, and R.V. Fischer. 1991. Gly-

- colysis and swimming performance in juvenile American alligators. *J. Herpetol.* 25:406-411.
- Gibbons, J.W. 1977. Their blood runs cold. Adventures with reptiles and amphibians. Univ. Alabama Press, University.
- and R.R. Sharitz. 1974. Thermal alteration of aquatic ecosystems. *Amer. Sci.* 62:660-670.
- Gilboa, I. 1975. Karyotypes of amphibians and reptiles: a bibliographic review. *HISS Yearbk. Herpetol.* 1974:91-156.
- and H.G. Dowling. 1972. A bibliography on chromosomes of amphibians and reptiles. *Amer. Mus. Nat. Hist. Publ. Herpetol.* (4):1-33.
- Giles, L.W. 1948. Polydactylism in an alligator. *Copeia* 1948:214.
- Glasgow, V.L. 1991. A social history of the American alligator, the earth trembles with his thunder. St. Martin's Press, New York.
- Goin, C.J. 1943. The lower vertebrate fauna of the water hyacinth community in northern Florida. *Proc. Florida Acad. Sci.* 6:143-154.
- Goodwin, T.M. and W.R. Marion. 1977. Occurrence of Florida red-bellied turtle eggs in north-central Florida alligator nests. *Florida Sci.* 40:237-238.
- Gorman, G.C. 1973. The chromosomes of the Reptilia, a cytotoxic interpretation, p. 349-424. In A.B. Chiarelli and E. Capanna (eds.), *Cytotaxonomy and vertebrate evolution*. Academic Press, New York.
- Goslowski, K. and M. Pietrak. 1989. Surgical removal of a tumour from an eye of an American alligator (*Alligator mississippiensis*). *Erkr. Zootiere* 31:305-308.
- Gossette, R.L. and A. Hombach. 1969. Successive discrimination reversal (SDR) performances of American alligators and American crocodiles on a spatial task. *Percept. Motor Skills* 28:63-67.
- Gray, J.E. 1831a. A synopsis of the species of Reptilia of the class Reptilia. In E. Griffith (ed.), *The animal kingdom 9* (appendix):1-110. Geo. B. Whittaker, Treacher and Co., London.
- . 1831b. Synopsis reptilium, or short descriptions of the species of reptiles. Part I. Cataphracta. Tortoises, crocodiles, and enaliosaurians. Treuttal, Wurtz, and Co., London.
- . 1869. Synopsis of the species of Recent crocodilians or emydosaurians, chiefly founded on the specimens in the British Museum and the Royal College of Surgeons. *Trans. Zool. Soc. London* 6:125-169.
- Gregory, P.T. 1982. Reptilian hibernation, p. 53-154. In C. Gans and F.H. Pough (eds.), *Biology of the Reptilia, physiology D*, vol. 13. Academic Press, New York.
- Grenard, S. 1991. *Handbook of alligators and crocodiles*. Krieger Publ., Melbourne, Florida.
- Gucwinski, A., H. Gucwinska, and A. Rojkowski. 1972. Some biometeorological parameters in the thermoregulation of reptiles. *Internat. Zoo Yearbk.* 12:192-198.
- Guthe, K.F. 1981. Reptilian muscle: fine structure and physiological parameters, p. 265-354. In C. Gans and T.S. Parsons (eds.), *Biology of the Reptilia, morphology F*, vol. 11. Academic Press, New York.
- Hagström, T. 1991. Smilets återkomst — Historien om en Alligator. Göteborgs Naturhistoriska Museum 1991:41-44.
- Haig, D. 1991. Developmental asynchrony and environmental sex determination in alligators. *J. Theor. Biol.* 150:373-383.
- Haines, R.W. 1969. Epiphyses and sesamoids, p. 81-115. In C. Gans, A. D'A. Bellairs, and T.S. Parsons (eds.), *Biology of the Reptilia, morphology A*, vol. 1. Academic Press, London.
- Hall, P.M. 1991. Estimation of nesting female crocodilian size from clutch characteristics: correlates of reproductive mode, and harvest implications. *J. Herpetol.* 25:133-141.
- and A.J. Meier. 1993. Reproduction and behavior of western mud snakes (*Farancia abacura reinwardtii*) in American alligator nests. *Copeia* 1993:219-222.
- Halpern, M. 1992. Nasal chemical senses in reptiles, p. 423-523. In C. Gans and D. Crews (eds.), *Biology of the Reptilia, physiology E, hormones, brain, and behavior*, vol. 18. Univ. Chicago Press, Chicago.
- Hay, O.P. 1923. The Pleistocene of North America and its vertebrate animals from the states east of the Mississippi River and from the Canadian provinces east of Longitude 95°. *Carnegie Inst. Washington, Publ.* (322):1-499.
- Hayes-Odum, L., L. Bailey, T. Hill Kennedy, D. Cowman, and P. Reiff. 1994. *Alligator mississippiensis* (American Alligator). *Nests. Herpetol. Rev.* 25:119.
- , D. Valdez, M. Lowe, L. Weiss, P.H. Reiff, and D. Jones. 1993. American alligator (*Alligator mississippiensis*) nesting at an inland Texas site. *Texas J. Sci.* 45:51-61.
- Heinroth, O. 1941. Wie brüllt der Alligator? *Zool. Garten* 13:284-288.
- Heinz, G.H., F. Percival, and M.L. Jennings. 1991. Contaminants in American alligator eggs from Lake Apopka, Lake Griffin, and Lake Okeechobee, Florida. *Environ. Monit. Assess.* 16:277-285.
- Hemming, F. 1956. Proposed use of the plenary powers to ensure that the specific name "*mississippiensis*" Daudin, [1801-1802] as published in combination "*Crocodylus mississippiensis*" shall be the oldest available name for the North American alligator (Class Reptilia) (supplement to, and, in part, correction of, a ruling given in "Opinion" 92). *Bull. Zool. Nomencl.* 12:163-175.
- . 1957. Report on Dr. James A. Oliver's proposal for the emendation to "*mississippiensis*" of the specific name published as "*mississippiensis*" Daudin [1801-1802], in the combination "*Crocodylus mississippiensis*" (Class Reptilia). *Bull. Zool. Nomencl.* 13:73-75.
- . 1958a. Direction 97. Determination under the plenary powers of the specific name to be used for the North American alligator and of the spelling to be used for that name (Class Reptilia) ("Opinion" supplementary to "Opinion" 92). *Opin. Decl. Int. Comm. Zool. Nomencl.*, 1 (F):87-126.
- . (ed.). 1958b. Official list of specific names in zoology. First installment. Names 1-1525. *Int. Trust Zool. Nomencl.*, London.
- Henninger, J.M. and W.A. Beresford. 1990. Is it coincidence that iron and melanin coexist in hepatic and other melanomacrophages? *Histol. Histopathol.* 5:457-459.
- Hensley, M. 1959. Albinism in North American amphibians and reptiles. *Publ. Mus. Michigan State, Univ. Biol. Ser.* 1:133-159.
- Hernandez, T. and R.A. Coulson. 1952. Hibernation in the alligator. *Proc. Soc. Exp. Biol. Med.* 79:145-149.
- and —. 1957. Inhibition of renal tubular function by cold. *Amer. J. Physiol.* 188:485-489.
- Herzog, H.A., Jr. 1975. An observation of nest opening by an American alligator *Alligator mississippiensis*. *Herpetologica* 31:446-447.
- and G.W. Burghardt. 1977. Vocalization in juvenile crocodilians. *Z. Tierpsychol.* 44:294-304.
- Hibbard, C.W. 1960. An interpretation of Pliocene and Pleistocene climates in North America. *Michigan Acad. Sci. Arts Lett.* 62nd Ann. Rep. (1959-1960):5-30.
- Hines, T., C. Abercrombie, F. Percival, and C. Woodward. 1986. Florida alligator: economics, harvest, and conservation, p. 132-142. In *Crocodiles. Proceedings of the 7th working meeting of the IUCN/SSC Crocodile Specialist Group.*, IUCN, Gland, Switzerland.
- Ho, S.-M., V. Lance, and M. Megaloudis. 1987. Plasma sex steroid binding protein in a seasonally breeding reptile, *Alligator mississippiensis*. *Gen. Comp. Endocrinol.* 65:121-132.
- Hofstetter, R. and J.-P. Gasc. 1969. Vertebrae and ribs of modern reptiles, p. 201-310. In C. Gans, A. D'A. Bellairs, and T.S. Parsons (eds.), *Biology of the Reptilia, morphology A*, vol. 1. Academic Press, London.
- Holbrook, J.E. 1842. *North American herpetology*. Vol. 2. J. Dobson and Son, Philadelphia.
- Holman, J.A. 1959a. A Pleistocene herpetofauna near Orange Lake, Florida. *Herpetologica* 15:121-125.
- . 1959b. Amphibians and reptiles from the Pleistocene (Illinoian) of Williston, Florida. *Copeia* 1959:96-102.
- . 1969. The Pleistocene amphibians and reptiles of Texas. *Publ. Mus. Michigan State Univ. Biol. Ser.* 4:161-192.
- Hopping, A. 1923. Seasonal changes in the gases and sugar of the blood and the nitrogen distribution in the blood and urine of the alligator. *Amer. J. Physiol.* 66:145-163.
- Hord, L.J., M. Jennings, and A. Brunell. 1990. Mercury contamination of Florida alligators, p. 229-240. In *Crocodiles. Proceedings of the 10th working meeting of the IUCN/SSC Crocodile Specialist Group*. Vol. 1. IUCN, Gland, Switzerland.
- Hornaday, W.T. 1875. The crocodile in Florida. *Amer. Nat.* 9:498-504.
- . 1914. *The American natural history; a foundation of useful knowledge of the higher animals of North America*. Vol. 4. Reptiles, amphibians and fishes. Charles Scribner's Sons, New York.
- Howell, B.J. and H. Rahn. 1976. Regulation of acid-base balance in reptiles, p. 335-363. In C. Gans and W.R. Dawson (eds.), *Biology of the Reptilia, physiology A*, vol. 5. Academic Press, London.
- Huang, Z. and M.E. Watanabe. 1986. Nest excavation and hatching behaviors of Chinese and American alligators. *Acta Herpetol. Sinica* 5:5-9.
- Huggins, S.E., H.E. Hoff, and R.V. Pena. 1969. Heart and respiratory



- rates in crocodylian reptiles under conditions of minimal stimulation. *Physiol. Zool.* 42:320-333.
- Hunt, R.H. 1987. Nest excavation and neonate transport in wild *Alligator mississippiensis*. *J. Herpetol.* 21:348-350.
- . 1989. Predation of alligator nests in Okefenokee Swamp National Wildlife Refuge, Georgia, U.S.A., p. 74-78. *In* Crocodiles: their ecology, management and conservation. Proceedings of the 8th working meeting of the IUCN/SSC Crocodile Specialist Group. IUCN, Gland, Switzerland.
- . 1990a. Aggressive behavior of adult alligators, *Alligator mississippiensis*, toward subadults in Okefenokee Swamp, p. 360-371. *In* Crocodiles. Proceedings of the 9th working meeting of the IUCN/SSC Crocodile Specialist Group. Vol. 1. IUCN, Gland, Switzerland.
- . 1990b. A surveillance method for monitoring alligator nests, p. 241-249. *In* Crocodiles. Proceedings of the 10th working meeting of the IUCN/SSC Crocodile Specialist Group. Vol. 1. IUCN, Gland, Switzerland.
- and J.J. Ogden. 1991. Selected aspects of the nesting ecology of American alligators in the Okefenokee Swamp. *J. Herpetol.* 25: 448-453.
- Hutt, A. 1964. The alligator. *Florida Wildl.* 18(3):12-17, 34.
- . 1967. The American alligator. *Natl. Parks Mag.* 41(243):14-17.
- Hutton, J.M. 1986. Age determination of living Nile crocodiles from the cortical stratification of bone. *Copeia* 1986:332-341.
- Iordansky, N.N. 1964. The jaw muscles of the crocodiles and some related structures of the crocodylian skull. *Anat. Anz.* 115:256-280.
- . 1973. The skull of the Crocodylia, p. 201-262. *In* C. Gans and T.S. Parsons (eds.), *Biology of the Reptilia, morphology D*, vol. 4. Academic Press, London.
- Jackson, D.D. 1987. Alligators are back, breeding like crazy and making a big splash. *Smithsonian Mag.* 17(10):37-47.
- . 1989. Turtle's use of alligator nests, p. 145. *In* C.A. Ross (ed.), *Crocodiles and alligators. Facts on File*, New York.
- Jackson, J.F., H.W. Campbell, and K.E. Campbell, Jr. 1974. The feeding habits of crocodylians: validity of the evidence from stomach contents. *J. Herpetol.* 8:378-381.
- Jacobsen, T. and J.A. Kushlan. 1986a. Alligators in natural areas: choosing conservation policies consistent with local objectives. *Biol. Conserv.* 36:181-196.
- and —. 1986b. Alligator nest flooding in the southern Everglades: a methodology for management, p. 153-166. *In* Crocodiles. Proceedings of the 7th working meeting of the IUCN/SSC Crocodile Specialist Group. IUCN, Gland, Switzerland.
- and —. 1989. Growth dynamics in the American alligator (*Alligator mississippiensis*). *J. Zool. (London)* 219:309-328.
- Jacobson, E.R., M.P. Brown, M. Chung, K. Vliet, and R. Swift. 1988. Serum concentration and deposition kinetics of gentamicin and amikacin in juvenile American alligators. *J. Zoo Anim. Med.* 19: 188-194.
- Jennings, M.L., D.N. David, and K.M. Portier. 1991. Effect of marking techniques on growth and survivorship of hatchling alligators. *Wildl. Soc. Bull.* 19:204-207.
- Jewell, C.S.E., L.E. Cummings, M.J.J. Ronis, and G.W. Winston. 1989. The hepatic microsomal mixed-function oxygenase (MFO) system of *Alligator mississippiensis*: induction by 3-methylcholanthrene (MC). *Xenobiotica* 19:1181-1200.
- Joanen, T. 1974. Population status and distribution of alligators in the southeastern United States. *Proc. Southeast. Regional Endangered Species Workshop*, Tallahassee, Florida.
- and L. McNease. 1986. Classification and population status of the American alligator, p. 167-174. *In* Crocodiles. Proceedings of the 7th working meeting of the IUCN/SSC Crocodile Specialist Group. IUCN, Gland, Switzerland.
- and —. 1989a. Classification and population status of the American alligator, p. 79-83. *In* Crocodiles: their ecology, management and conservation. Proceedings of the 8th working meeting of the IUCN/SSC Crocodile Specialist Group. IUCN, Gland, Switzerland.
- and —. 1989b. Ecology and physiology of nesting and early development of the American alligator. *Amer. Zool.* 29:987-998.
- and —. 1990a. Classification and population status of the American alligator, p. 11-20. *In* Crocodiles. Proceedings of the 9th working meeting of the IUCN/SSC Crocodile Specialist Group. Vol. 2. IUCN, Gland, Switzerland.
- and —. 1990b. The effects of a severe winter freeze on wild alligators in Louisiana, p. 21-32. *In* Crocodiles. Proceedings of the 9th working meeting of the IUCN/SSC Crocodile Specialist Group. Vol. 2. IUCN, Gland, Switzerland.
- , —, and M.W.J. Ferguson. 1987. The effects of egg incubation temperature on post-hatching growth of American alligators, p. 533-537. *In* G.J.W. Webb, S.C. Manolis, and P.J. Whitehead (eds.), *Wildlife management: crocodiles and alligators*. Surrey Beatty and Sons, Chipping Norton, N.S.W.
- , —, G. Perry, D. Richard, and D. Taylor. 1984. Louisiana's alligator management program. *Proc. Ann. Conf. Southeast. Assoc. Fish. and Wildl. Agencies* 38:210-211.
- Johnson, A.S., H.O. Hillstead, S.F. Shanholtzer, and G.F. Shanholtzer. 1974. An ecological survey of the coastal region of Georgia. *Natl. Park Serv. Sci. Monogr. Ser.* 3. Supt. Doc., Washington, D.C.
- Johnson, L.A., D.S. Lobbies, and B.C. Thompson. 1985. Alligator nuisance control program in Texas: problem and process. *Proc. 7th Great Plains Wildl. Damage Cont. Workshop*:96-101.
- Jones, D. and L. Hayes-Odum. 1990. *Alligator mississippiensis* (American alligator). *Behavior. Herpetol. Rev.* 21:59-60.
- Joss, J.M.P. 1989. Gonadal development and differentiation in *Alligator mississippiensis* at male and female producing incubation temperatures. *J. Zool. (London)* 218:679-687.
- Kälin, J.A. 1933. Beiträge zur vergleichenden Osteologie des Crocodylienschädels. *Zool. Jahrb., Abt. für Anat.* 57:535-714.
- Kashinsky, H.E., M. Mann, S.Y. Huang, L. Fabre, B. Coyle, and E.W. Byrd, Jr. 1987. On the diversity of sperm basic proteins in the vertebrates: V. Cytochemical and amino acid analysis in Squamata, Testudines, and Crocodylia. *J. Exp. Zool.* 243:137-151.
- Kent, G.C. 1975. Systemic dissection of vertebrates. A laboratory guide. C.V. Mosby, Saint Louis, Missouri.
- Kercheval, D.R. and P.L. Little. 1990. Comparative growth rates of young alligators utilizing rations of plant and/or animal origins, p. 286-312. *In* Crocodiles. Proceedings of the 10th working meeting of the IUCN/SSC Crocodile Specialist Group. Vol. 1. IUCN, Gland, Switzerland.
- Kilham, L. 1985. Alligator with young threatens great blue heron. *Florida Fld. Nat.* 13:68-70.
- Kihira, K., A. Okamoto, and T. Hoshita. 1987. Identification of new C<sub>27</sub> and C<sub>24</sub> bile acids of *Alligator mississippiensis*. *J. Biochem. (Tokyo)* 101:1377-1384.
- King, F.W. and R.L. Burke. (eds.). 1989. Crocodylian, tuatara, and turtle species of the world. A taxonomic and geographic reference. *Assoc. Syst. Coll., Washington, D.C.*
- and P. Brazaitis. 1971. Species identification of commercial crocodylian skins. *Zoologica (N.Y.)* 56:15-70.
- Klembara, J. 1991. The cranial anatomy of early ontogenetic stages of *Alligator mississippiensis* (Daudin, 1802) and the significance of its cranial structures for the evolution of tetrapods. *Palaeontogr. Abt. A. Palaeozool.-Stratigr.* 215:103-171.
- Knutson, R.M. 1987. Flattened fauna: a field guide to common animals of roads, streets, and highways. Ten Speed Press, Berkeley, California.
- Kochva, E. 1978. Oral glands of Reptilia, p. 43-161. *In* C. Gans and K.A. Gans (eds.), *Biology of the Reptilia, physiology B*, vol. 8. Academic Press, New York.
- Kushlan, J.A. and T. Jacobsen. 1990. Environmental variability and the reproductive success of Everglades alligators. *J. Herpetol.* 24:176-184.
- Kutsche, L.M. and L.H.S. van Mierop. 1988. Development of the pulmonary vein in the American alligator (*Alligator mississippiensis*). *Anat. Rec.* 222:170-176.
- Lance, V. 1985. Reproduction in the American alligator, *Alligator mississippiensis*, p. 253-255. *In* B. Lofts and W.N. Holmes (eds.), *Current trends in comparative endocrinology. Proceedings in the Ninth International Symposium on Comparative Endocrinology*, vol. 1. Hong Kong Univ. Press.
- . 1989. Reproductive cycle of the American alligator. *Amer. Zool.* 29:999-1018.
- and M.H. Bogart. 1991. Tamoxifen "sex reverses" alligator embryos at male producing temperature, but is an antiestrogen in female hatchlings. *Experientia (Basel)* 47:263-266.
- and R.M. Elsey. 1986. Stress-induced suppression of testosterone secretion in male alligators. *J. Exp. Zool.* 239:241-246.
- and K.A. Vliet. 1987. Effect of mammalian gonadotropins on testosterone secretion in male alligators. *J. Exp. Zool.* 241:91-94.
- , —, and J. L. Bolaffi. 1985. Effects of mammalian luteinizing hormone-releasing hormone on plasma testosterone in male alligators, with observations on the nature of alligator hypothalamic gonadotropin-releasing hormone. *Gen. Comp. Endocrinol.* 60:

- 138-143.
- Lane, H.H. 1909. *Alligator mississippiensis* in Oklahoma. *Science* 30: 923-924.
- Lang, J.W. 1989a. Social behavior, p. 102-117. *In* C.A. Ross (ed.), *Crocodyles and alligators*. Facts on File, New York.
- . 1989b. Sex determination, p. 120. *In* C.A. Ross (ed.), *Crocodyles and alligators*. Facts on File, New York.
- Lauren, D.J. 1985. The effect of chronic saline exposure on the electrolyte balance, nitrogen metabolism, and corticosterone titer in the American alligator *Alligator mississippiensis*. *Comp. Biochem. Physiol.* 81A:217-223.
- Laycock, G. 1987. The unendangered alligator's rapid fall from grace. *Audubon* 89(5):38-43.
- Leach, W.E. 1815. *In* W.E. Leach and R.P. Nodder (eds.), *The zoological miscellany; being descriptions of new, or interesting animals*. Vol. 2. London.
- Lewis, L.Y. and R.E. Gatten, Jr. 1985. Aerobic metabolism of American alligators, *Alligator mississippiensis*, under standard conditions and during voluntary activity. *Comp. Biochem. Physiol.* 80A:441-447.
- Lindberg, I. and L. White. 1986. Reptilian enkephalins: implications for the evolution of proenkephalin. *Arch. Biochem. Biophysics* 245:1-7.
- Little, P.L. 1990. Exogenous vitamin C for captive propagated alligators, p. 6-19. *In* *Crocodyles*. Proceedings of the 10th working meeting of the IUCN/SSC Crocodile Specialist Group. Vol. 2. IUCN, Gland, Switzerland.
- Louder, D.E. 1965. The alligator: North Carolina's link with the past. *Wildlife in North Carolina* 29:4-6.
- Lovejoy, D.A., W.H. Fischer, D.B. Parker, J.E. McRory, M. Park, V. Lance, P. Swanson, J.E. Rivier, and N.M. Sherwood. 1991. Primary structure of two forms of gonadotropin-releasing hormone from brains of the American alligator (*Alligator mississippiensis*). *Regul. Pept.* 33:105-116.
- Lundelius, E. 1972. Fossil vertebrates from the Late Pleistocene Ingleside fauna, San Patricio County, Texas. *Univ. Texas Bur. Econ. Geol. Rept. Invest.* 77:1-74.
- Luppa, H. 1977. Histology of the digestive tract, p. 225-313. *In* C. Gans and T.S. Parsons (eds.), *Biology of the Reptilia, morphology E*, vol. 6. Academic Press, London.
- Maderson, P.F.A. 1985. Some developmental problems of the reptilian integument, p. 532-598. *In* C. Gans, F. Billett, and P.F.A. Maderson (eds.), *Biology of the Reptilia, development A*, vol. 14. John Wiley & Sons, New York.
- Magnusson, W.E., A.P. Lima, and R.W. Sampaio. 1985. Source of heat for nests of *Paleosuchus trigonatus* and a review of crocodylian nest temperatures. *J. Herpetol.* 19:199-207.
- , K.A. Vliet, A.C. Pooley, and R. Whitaker. 1989. Reproduction, p. 118-135. *In* C.A. Ross (ed.), *Crocodyles and alligators*. Facts on File, New York.
- Makino, S. 1951. An atlas of the chromosome numbers in animals. Iowa State College Press, Ames.
- Malone, B. 1979. The systematics, phylogeny and paleobiology of the genus *Alligator*. Ph.D. diss., City Univ. New York.
- Martin, G. 1989. Zucht von Alligatoren in Florida. *Aquarien-Terrarien Z.* 42:550-553.
- Martinez del Rio, C. and B.R. Stevens. 1988. Intestinal brush border membrane-bound disaccharides of the American alligator, *Alligator mississippiensis*. *Comp. Biochem. Physiol.* 91B:751-754.
- Martof, B.S. 1963. Some observations on the herpetofauna of Sapelo Island, Georgia. *Herpetologica* 19:70-72.
- , 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.
- Mason, R.T. 1992. Endogenous rhythms, p. 114-228. *In* C. Gans and D. Crews (eds.), *Biology of the Reptilia, physiology E, hormones, brain, and behavior*, vol. 18. Univ. Chicago Press, Chicago.
- Mathieu-Costello, O. 1988. Capillary configuration in contracted muscles: comparative aspects. *Adv. Exp. Med. Biol.* 227:229-236.
- Matthey, R. 1947. Quelques formules chromosomiales. *Scientia Genet.* 3:23-32.
- . 1949. Les chromosomes des vertébrés. F. Rouge. Lausanne.
- . 1954. Les chromosomes des vertébrés. *Traité Zool.* 12:1044-1063.
- . 1970. Les chromosomes des reptiles. *Traité Zool.* 14:829-858.
- and J.M. van Brink. 1957. Sex chromosomes in Amniota. *Evolution* 11:163-165.
- Mazzotti, F.J. and W.A. Dunson. 1984. Adaptations of *Crocodylus acutus* and *Alligator* for life in saline water. *Comp. Biochem. Physiol.* 79A:641-646.
- and ———. 1989. Osmoregulation in crocodylians. *Amer. Zool.* 29:903-920.
- McAllister, C.T. and S.J. Upton. 1990. The Coccidia (Apicomplex: Eimeriidae) of Crocodylia, with descriptions of new species from *Alligator mississippiensis* (Reptilia: Alligatoridae) from Texas. *J. Parasitol.* 76:332-336.
- McDaniel, J. and L. Hord. 1990. Specialized equipment and techniques used in alligator management and research, p. 20-39. *In* *Crocodyles*. Proceedings of the 10th working meeting of the IUCN/SSC Crocodile Specialist Group. Vol. 2. IUCN, Gland, Switzerland.
- McDonald, H.S. 1976. Methods for the physiological study of reptiles, p. 19-126. *In* C. Gans and W.R. Dawson (eds.), *Biology of the Reptilia, physiology A*, vol. 5. Academic Press, London.
- McDonald, M.M. and H.W. Taylor. 1988. Egg yolk serositis in an American alligator (*Alligator mississippiensis*). *J. Wildl. Dis.* 24: 700-702.
- McIlhenny, E.A. 1935. The alligator's life history. Christopher Publ. House, Boston.
- . 1976. The alligator's life history. Soc. Stud. Amphib. Rept. Misc. Publ. Reprint, with added editors note, forward, and index to recent literature.
- McIntosh, A. 1935. *Odneriotrema incommodum* (Leidy, 1856), a trematode from the mouth of *Alligator mississippiensis* (Daudin). *J. Parasitol.* 21:53-55.
- Mearns, E.A. 1907. Mammals of the Mexican Boundary of the United States. Part. 1, families Didelphidae to Muridae. *Bull. U.S. Natl. Mus.* (56):1-530.
- Mechling, J. 1987. The alligator, pp. 73-98. *In* A.K. Gillespie and J. Mechling (eds.), *American wildlife in symbol and story*. Univ. Tennessee Press, Knoxville.
- Menzies, R.A. 1991. Allozyme variation and conservation: application to spiny lobsters and crocodylians, p. 121-139. *In* A. Seitz and V. Loeschcke (eds.), *Species conservation. A population-biological approach*. Birkhauser Verlag, Basel.
- Mertens, R. 1956. Der Holotypus von "*Crocodylus mississippiensis*" Daudin [1801-1802], ist der Lectotypus von "*Crocodylus lucius*" Cuvier (G.), 1807. *Bull. Zool. Nomencl.* 12:175.
- Meyer, E.R. 1984. Crocodylians as living fossils, pp. 105-131. *In* N. Eldredge and S.M. Stanley (eds.), *Living fossils*. Springer Verlag, New York.
- . 1987. A large predator separated into classes: alligator populations. *Amer. Zool.* 27:95A.
- Miller, M.R. and M.D. Lagios. 1970. The pancreas, p. 319-346. *In* C. Gans and T.S. Parsons (eds.), *Biology of the Reptilia, morphology C*, vol. 3. Academic Press, London.
- Minnich, J.E. 1982. The use of water, p. 325-395. *In* C. Gans and F.H. Pough (eds.), *Biology of the Reptilia, physiology C*, vol. 12. Academic Press, New York.
- Mo, X. 1993. The origin of *Alligator sinensis*. *Science in China B*, 36: 279-287.
- , W. Wang, and Y. Shi. 1988. Comparative studies on renaturation kinetics of *Alligator sinensis* and *Alligator mississippiensis* and their organization of the genomes. *Acta Genetica Sinica* 15: 436-441.
- Moody, M.W. and P.D. Corell. 1981. Alligators: harvesting and processing. Publ. LSU TL-81-002 of the Louisiana Coop. Ext. Serv., Baton Rouge.
- Mook, C.C. 1921a. Individual and age variations in the skulls of Recent Crocodylia. *Bull. Amer. Mus. Nat. Hist.* 44:51-66.
- . 1921b. The dermo-supraoccipital bone in the Crocodylia. *Bull. Amer. Mus. Nat. Hist.* 44:101-103.
- . 1923a. A new species of alligator from the Snake Creek Beds. *Amer. Mus. Nov.* (73):1-13.
- . 1923b. Skull characters of *Alligator sinense* Fauvel. *Bull. Amer. Mus. Nat. Hist.* 48:553-562.
- . 1946. A new Pliocene alligator from Nebraska. *Amer. Mus. Nov.* (1311):1-12.
- Mookerjee, H.K. and R.N. Bhattacharya. 1948. On the development of the vertebral column in *Alligator mississippiensis*. *Proc. Zool. Soc. Bengal* 1:71-78.
- Moreland, A.F., D.J. Forrester, and M.F. Delaney. 1989. *Sebekia mississippiensis* (Pentastomida) from juvenile American alligators in north central Florida. *Proc. Helminthol. Soc. Washington* 56:

- 42-43.
- Moses, R.D. and R.H. Chabreck. 1991. Transportation and artificial incubation of American alligator eggs, p. 81-90. *In* Crocodiles. Proceedings of the 10th working meeting of the IUCN/SSC Crocodile Specialist Group. Vol. 2. IUCN, Gland, Switzerland.
- Mount, R.H. 1975. The reptiles and amphibians of Alabama. Auburn Univ. Agric. Exp. Stat., Auburn, Alabama.
- Muller, G.B. and P. Alberch. 1990. Ontogeny of the limb skeleton in *Alligator mississippiensis*: developmental invariance and change in the evolution of archosaur limbs. *J. Morphol.* 203:151-164.
- Müller, J.W. von. 1865. Reisen in den vereinigten Staaten, Canada und Mexiko. F.A. Brockhaus, Leipzig.
- Murphy, R.W. and C.B. Crabtree. 1985. Evolutionary aspects of isozyme patterns, number of loci, and tissue-specific gene expression in the prairie rattlesnake, *Crotalus viridis viridis*. *Herpetologica* 41:451-470.
- Murray, J.D., D.C. Deeming, and M.W.J. Ferguson. 1990. Size-dependent pigmentation-pattern formation in embryos of *Alligator mississippiensis*: time of initiation of pattern generation mechanism. *Proc. Royal Soc. London B Biol. Sci.* 239:279-293.
- Neill, W.T. 1971. The last of the ruling reptiles. Alligators, crocodiles, and their kin. Columbia Univ. Press, New York.
- Nicholls, E.L. and A.P. Russell. 1985. Structure and function of the pectoral girdle and forelimb of *Struthiomimus altus* (Theropoda: Ornithomimidae). *Palaeontology* 28:643-677.
- Noble, R.C., D.C. Deeming, M.W.J. Ferguson, and R. McCartney. 1990. Changes in the lipid and fatty acid composition of the yolk during embryonic development of the alligator (*Alligator mississippiensis*). *Comp. Biochem. Physiol.* 96B:183-187.
- , ———, and ———. 1991. The utilization of yolk phosphoglycerides by the alligator during embryonic development. *J. Comp. Physiol.* 161B:383-386.
- Norell, M.A. 1989. The higher level relationships of the extant Crocodylia. *J. Herpetol.* 23:325-335.
- Novak, S.S. and R.A. Seigel. 1986. Gram-negative septicemia in American alligators (*Alligator mississippiensis*). *J. Wildl. Dis.* 22:484-487.
- O'Brien, T.G. 1990. A comparison of 3 survey methods for estimating relative abundance of rare crocodylians, p. 91-108. *In* Crocodiles. Proceedings of the 10th working meeting of the IUCN/SSC Crocodile Specialist Group. Vol. 2. IUCN, Gland, Switzerland.
- and P.D. Doerr. 1986. Night count surveys for alligators in coastal counties of North Carolina. *J. Herpetol.* 20:444-448.
- Oliver, J.A. 1957. Spelling of specific name of *Alligator mississippiensis*. *Bull. Zool. Nomencl.* 13:74-75.
- Olmo, E. 1976. Genome size in some reptiles. *J. Exp. Zool.* 195:305-310.
- Ottaviani, G. and A. Tazzi. 1977. The lymphatic system, p. 315-462. *In* C. Gans and T.S. Parsons (eds.), *Biology of the Reptilia, morphology E*, vol. 6. Academic Press, London.
- Overstreet, R.M., J.T. Self, and K.A. Vliet. 1985. The pentastomid *Sebekia mississippiensis* sp. n. in the American alligator and other hosts. *Proc. Helminthol. Soc. Washington* 52:266-277.
- Packard, G.C. and M.J. Packard. 1988. The physiological ecology of reptilian eggs and embryos, p. 523-605. *In* C. Gans and R.B. Huey (eds.), *Biology of the Reptilia, ecology B*, vol. 16. Alan R. Liss, Inc., New York.
- Packard, M.J. and G.C. Packard. 1989. Mobilization of calcium, phosphorus, and magnesium by embryonic alligators (*Alligator mississippiensis*). *Amer. J. Physiol.* 257:R1541-R1547.
- Palis, J.G. 1989. *Alligator mississippiensis* (American alligator). Foraging behavior. *Herpetol. Rev.* 20:69.
- Palmer, B.D. and L.J. Guillette, Jr. 1992. Alligators provide evidence for the evolution of an archosaurian mode of oviparity. *Biol. Reprod.* 46:39-47.
- Palmer, W.M. and A.L. Braswell. 1977. Reptilia: Crocodylia: Alligatoridae, p. 310-311. *In* J.E. Cooper, S.S. Robinson, and J.B. Funderburg (eds.), *Endangered and threatened biota of North Carolina*. North Carolina State Mus. Nat. Hist., Raleigh.
- Parsons, T.S. 1959. Studies on the comparative embryology of the reptilian nose. *Bull. Mus. Comp. Zool. Harvard* 120:101-277.
- . 1970. The nose and Jacobson's organ, p. 99-191. *In* C. Gans and T.S. Parsons (eds.), *Biology of the Reptilia, morphology B*, vol. 2. Academic Press, London.
- and J.E. Cameron. 1977. Internal relief of the digestive tract, p. 159-223. *In* C. Gans and T.S. Parsons (eds.), *Biology of the Reptilia, morphology E*, vol. 6. Academic Press, London.
- Paukstis, G.L. and F.J. Janzen. 1990. Sex determination in reptiles: summary of effects of constant temperatures of incubation on sex ratios of offspring. *Smithsonian Herpetol. Infor. Serv.* (83):1-28.
- Peterson, E.H. 1992. Retinal structure, p. 1-135. *In* C. Gans and P.S. Ulinski (eds.), *Biology of the Reptilia, neurology C, sensorimotor integration*, vol. 17. Univ. Chicago Press, Chicago.
- Phelps, R.L. and R.E. Gatten, Jr. 1991. Thermal insensitivity of oxygen pulse in spontaneously-active juvenile alligators. *J. Thermal Biol.* 16:303-307.
- Platel, R. 1979. Brain weight-body weight relationships, p. 147-171. *In* C. Gans, R.G. Northcutt, and P. Ulinski (eds.), *Biology of the Reptilia, neurology A*, vol. 9. Academic Press, New York.
- Platt, S.G. and C.G. Brantley. 1991. Observations of foraging behavior in captive juvenile *Alligator mississippiensis*. *Herpetol. Rev.* 22:83-84.
- , ———, R.S. Cropanzano, and R.W. Hastings. 1990a. A method for determining the size of nesting female alligators. *Wildl. Soc. Bull.* 18:296-298.
- , ———, and R. W. Hastings. 1990b. Food habits of juvenile American alligators in the Upper Lake Pontchartrain Estuary. *North-east Gulf Sci.* 11:123-130.
- Potter, F.E., Jr. 1981. Status of the American alligator in Texas. *Spec. Rep., Texas Parks Wildl. Dept., Austin*.
- Powell, F.L. and A.T. Gray. 1989. Ventilation-perfusion relationships in alligators. *Resp. Physiol.* 78:83-94.
- Prince, J.H. 1956. Comparative anatomy of the eye. Charles C. Thomas Publ., Springfield, Illinois.
- Prindle, K.S. 1988. Alligators and people: when two populations collide. *The Animal's Agenda* 8(1):32-34.
- Rafinesque, C.S. 1822. The Cosmonist - No. XIII. The largest alligators, dreadful foes of finny tribes, to fleetest lizards are related. On the lizards of the United States. *Kentucky Gazette, Lexington n. ser.* 1(29):3.
- Rathke, H. 1866. Untersuchungen über die Entwicklung und den Körperbau der Krokodile. W. Von Wittich (ed.), Friedrich Vieweg und Sohn, Braunschweig.
- Raynaud, A. and C. Pieau. 1985. Embryonic development of the genital system, p. 149-300. *In* C. Gans and F. Billett (eds.), *Biology of the Reptilia, development B*, vol. 15. John Wiley and Sons, New York.
- Reese, A.M. 1915. The alligator and its allies. G.P. Putnam's Sons, New York.
- Reid, J.P. and R.K. Bonde. 1990. *Alligator mississippiensis* (American alligator). *Diet. Herpetol. Rev.* 21:59.
- Reiner, A.J. 1992. Neuropeptides in the nervous system, p. 587-739. *In* C. Gans and P.S. Ulinski (eds.), *Biology of the Reptilia, neurology C, sensorimotor integration*, vol. 17. Univ. Chicago Press, Chicago.
- Reperant, J., J.-P. Rio, R. Ward, S. Herqueta, D. Miceli, and M. Lemire. 1992. Comparative analysis of the primary visual system of reptiles, p. 175-240. *In* C. Gans and P.S. Ulinski (eds.), *Biology of the Reptilia, neurology C, sensorimotor integration*, vol. 17. Univ. Chicago Press, Chicago.
- Rhoads, S.N. 1896. Contributions to the zoology of Tennessee. No. 1, reptiles and amphibians. *Proc. Acad. Nat. Sci., Philadelphia* (1895):376-407.
- Rhoten, W.B. 1985. Comparative ultrastructural studies on the endocrine pancreas of reptiles. *Proc. Elect. Micros. Soc. South Africa* 15:169-170.
- Risley, P.L. 1964. The chromosomes of the alligator. *Anat. Rec.* 84:513.
- Roberts, E.D., C.L. Matlock, T. Joanen, L. McNease, and M. Bowen. 1988. Bone morphometrics and tetracycline marking patterns in young growing American alligators (*Alligator mississippiensis*). *J. Wildl. Dis.* 24:67-70.
- Rodda, G.H. 1984a. Homeward paths of displaced juvenile alligators as determined by radiotelemetry. *Behav. Ecol. Sociobiol.* 14:241-246.
- . 1984b. The orientation and navigation of juvenile alligators: evidence of magnetic sensitivity. *J. Comp. Physiol.* 154A:649-658.
- . 1985. Navigation in juvenile alligators. *Z. Tierpsychol.* 68:65-77.
- and J.B. Phillips. 1992. Navigational systems develop along similar lines in amphibians, reptiles, and birds. *Ethol. Ecol. Evol.* 4:43-51.
- Romer, A.S. 1956. The osteology of the reptiles. Univ. Chicago Press, Chicago.
- Rootes, W.L. and R.H. Chabreck. 1992. Sex ratios of American alligators live-captured and harvested by baited hooks. *Wildl. Soc. Bull.* 20:140-142.

- and —. 1993. Cannibalism in the American alligator. *Herpetologica* 49:99-107.
- , —, V.L. Wright, B.W. Brown, and T.J. Hess. 1991. Growth rates of American alligators in estuarine and palustrine wetlands in Louisiana. *Estuaries* 14:489-494.
- Rose, J.P., R. Paxton, and C.H. Britton, III. 1990. Identification of an ovalbumin-like protein in egg-white of turtle and alligator. *Comp. Biochem. Physiol.* 96B:651-654.
- Ross, C.A. (ed.). 1989. *Crocodyles and alligators*. Facts on File, New York.
- and C.D. Roberts. 1979. Scalation of the American alligator. *FWS. Spl. Sci. Rep. - Wildl.* (225):1-8.
- Ross, F.D. and G.C. Mayer. 1983. On the dorsal armor of the Crocodylia, p. 305-331. *In* A.G.J. Rhodin and K. Miyata (eds.), *Advances in herpetology and evolutionary biology*. Mus. Comp. Zool. Harvard, Cambridge, Massachusetts.
- Roth, J.A. and J. Laerm. 1980. A Late Pleistocene vertebrate assemblage from Edisto Island, South Carolina. *Brimleyana* (3):1-29.
- Ruckel, S.W. and G.W. Steele. 1984. Alligator nesting ecology in two habitats in southern Georgia. *Proc. Ann. Conf. Southeast. Assoc. Fish and Wildl. Agencies* 38:212-221.
- Safford, W.E. 1919. Natural history of Paradise Key and the near-by everglades of Florida. *Ann. Rep. Smithsonian Inst.* 1917:377-444.
- Sato, I. and K. Shimada. 1990. Morphology of the teeth of the American alligator (*Alligator mississippiensis*): fine structure and chemistry of the enamel. *J. Morphol.* 205:165-172.
- , T. Sato, and T. Kitagawa. 1992. Histochemical study of jaw muscle fibers in the American alligator (*Alligator mississippiensis*). *J. Morphol.* 211:187-199.
- Schneider, J.G. 1801. *Historiae amphibiorum naturalis et literariae*. Fasciculus secundus. Friedr. Frommann, Jena.
- Schnek, A.G., G. Braunitzer, and F. Leclerg. 1984. Crocodylian hemoglobins, p. 433-444. *In* A.G. Schnek and C. Paul (eds.), *Hemoglobin*. Brussels Hemoglobin Symposium. Univ. Bruxelles, Brussels, Belgium.
- Schulte, D.M. and R.H. Chabreck. 1990. Effects of nest and egg characteristics on size and early development of American alligators, p. 177-187. *In* *Crocodyles*. Proceedings of the 10th working meeting of the IUCN/SSC Crocodile Specialist Group. Vol. 2. IUCN, Gland, Switzerland.
- Schultz, C. 1810. Travels on an inland voyage through the states of New York, Pennsylvania, Virginia, Ohio, Kentucky, and Tennessee, and through the territories of Indiana, Louisiana, Mississippi and New Orleans. Vol. 2. Isaac Ripley, New York.
- Schumacher, G.-H. 1973. The head muscles and hyolaryngeal skeleton of turtles and crocodylians, p. 101-199. *In* C. Gans and T.S. Parsons (eds.), *Biology of the Reptilia, morphology D*, vol. 4. Academic Press, London.
- Schwab, M.E. 1979. Variation in the rhombencephalon, p. 201-246. *In* C. Gans, R.G. Northcutt, and P. Ulinski (eds.), *Biology of the Reptilia, neurology B*, vol. 10. Academic Press, New York.
- Scott, T.P. and P.J. Weldon. 1990. Chemoreception in the feeding behaviour of adult American alligators, *Alligator mississippiensis*. *Anim. Behav.* 39:398-400.
- Seba, A. 1734. *Locupletissimi rerum naturalium thesauri accurata descriptio et iconibus artificiosissimis expresso, per universam physices historian, vol. 1*. Janssonio Waesbergius, Amstelredami.
- Senn, D.G. 1979. Embryonic development of the central nervous system, p. 173-244. *In* C. Gans, R.G. Northcutt and P. Ulinski (eds.), *Biology of the Reptilia, neurology A*, vol. 9. Academic Press, New York.
- Seymour, R.S. 1982. Physiological adaptations to aquatic life, p. 1-51. *In* C. Gans and F.H. Pough (eds.), *Biology of the Reptilia, physiology D*, vol. 13. Academic Press, New York.
- Sievert, G. and L. Sievert. 1989. A field guide to reptiles of Oklahoma. Oklahoma Dept. Wildl. Cons., Oklahoma City.
- Shah, R. and M.W.J. Ferguson. 1988. Histological evidence of fusion between the posterior palatal shelves and the floor of the mouth in *Alligator mississippiensis*. *Arch. Oral Biol.* 33:769-771.
- Shelton, G. and D.R. Jones. 1991. The physiology of the alligator heart: the cardiac cycle. *J. Exp. Biol.* 158:539-564.
- Shemer, J., M. Raizada, and D. LeRoith. 1987. Structural and functional studies on insulin receptors from alligator brain and liver. *Comp. Biochem. Physiol.* 86B:55-61.
- Shimada, K., I. Sato, A. Yokoi, T. Kitagawa, M. Tezuka, and T. Ishii. 1990. The fine structure and elemental analysis of keratinized epithelium of the filiform papillae analysis on the dorsal tongue in the American alligator (*Alligator mississippiensis*). *Okajimas Folia Anat. Japan* 66:375-391.
- , —, and H. Moriyama. 1992. Morphology of the tooth of the American alligator (*Alligator mississippiensis*): the fine structure and elemental analysis of the cementum. *J. Morphol.* 211:319-329.
- Shine, R. 1988. Parental care in reptiles, p. 275-329. *In* C. Gans and R.B. Huey (eds.), *Biology of the Reptilia, ecology B*, vol. 16. Alan R. Liss, New York.
- Shoop, C.R. and C.A. Ruckdeschel. 1990. Alligators as predators on terrestrial mammals. *Amer. Midl. Nat.* 124:407-412.
- Sill, W.D. 1968. The zoogeography of the crocodyles. *Copeia* 1968:76-88.
- Silldorff, E.P. and G.A. Stephens. 1992a. Effects of converting enzyme inhibition and alpha receptor blockade on the angiotensin pressor response in the American alligator. *Gen. Comp. Endocrinol.* 87:134-140.
- and —. 1992b. The pressor response to exogenous angiotensin I and its blockage by angiotensin II analogues in the American alligator. *Gen. Comp. Endocrinol.* 87:141-148.
- Skoczylas, R. 1978. Physiology of the digestive tract, p. 589-717. *In* C. Gans and K.A. Gans (eds.), *Biology of the Reptilia, physiology B*, vol. 8. Academic Press, New York.
- Smith, D.D., Jr. and J.W. Campbell. 1987. Glutamine synthetase in liver of the American alligator, *Alligator mississippiensis*. *Comp. Biochem. Physiol.* 86B:755-762.
- Smith, H.M. and E.D. Brodie, Jr. 1982. *A guide to field identification: reptiles of North America*. Golden Press, New York.
- and R.B. Smith. 1977. *Synopsis of the herpetofauna of Mexico, vol. 5. Guide to Mexican amphisbaenians and crocodylians*. Bibliographic addendum II. John Johnson, North Bennington, Vermont.
- Smyth, J.F.D. 1784. *A tour of the United States of America*. G. Robinson, London.
- Snider, A.T. and J.K. Bowler. 1992. Longevity of reptiles and amphibians in North American collections. 2nd ed. *Soc. Stud. Amphib. Rept. Herpetol. Circ.* (21):1-40.
- Stapel, S.O., A. Zweers, J. Dodemont, J.H. Kan, and W.W. de Jong. 1985. [Epsilon]-crystallin, a novel avian and reptilian eye lens protein. *European J. Biochem.* 147:129-136.
- Staton, M.A., I.L. Brisbin, Jr., and G.M. Pesti. 1989. Feed formulation for alligators: an overview and initial studies, p. 84-104. *In* *Crocodyles: their ecology, management and conservation*. Proceedings of the 8th working meeting of the IUCN/SSC Crocodile Specialist Group. IUCN, Gland, Switzerland.
- , H.M. Edwards, Jr., I.L. Brisbin, Jr., T. Joanen, and L. McNease. 1990a. Essential fatty acid nutrition of the American alligator (*Alligator mississippiensis*). *J. Nutrition* 120:674-685.
- , —, —, —, and —. 1990b. Protein and energy relationships in the diet of the American alligator (*Alligator mississippiensis*). *J. Nutrition* 120:775-785.
- , —, —, L. McNease, and T. Joanen. 1990c. Dietary energy sources for the American alligator, *Alligator mississippiensis* (Daudin). *Aquaculture* 89:245-261.
- , L. McNease, T. Joanen, I.L. Brisbin, Jr., and H.M. Edwards, Jr. 1990d. Supplemented nutria (*Myocastor coypus*) meat as a practical feed for American alligators (*Alligator mississippiensis*), p. 199-220. *In* *Crocodyles*. Proceedings of the 9th working meeting of the IUCN/SSC Crocodile Specialist Group. Vol. 2. IUCN, Gland, Switzerland.
- Steel, R. 1973. *Crocodylia*, Teil 16, p. 1-116. *In* O. Kuhn (ed.), *Encyclopedia der Palaeoherpetologie*. Gustav Fischer Verlag, Stuttgart.
- , 1989. *Crocodyles*. Christopher Helm, London.
- Stejneger, L. 1933. Crocodylian nomenclature. *Copeia* 1933:117-120.
- and T. Barbour. 1917. *A check list of North American amphibians and reptiles*. Harvard Univ. Press, Cambridge, Massachusetts.
- Stillman, A.J., S.J. Roman, and E.R. Loew. 1991. Histology and microspectrophotometry of the photoreceptors of a crocodylian, *Alligator mississippiensis*. *Proc. Royal Soc. London B. Biol.* 243:93-98.
- Strain, G.M., T.A. Tucker, M.C. Graham, and N.A. O'Malley. 1987. Brain-stem auditory evoked potentials in the alligator. Effects of temperature and hypoxia. *Electroencephalogr. Clin. Neurophysiol.* 67:68-76.
- Takagi, M., T. Kazama, K. Shimada, Y. Hosokawa, and H. Hishikawa. 1989. Differential distribution and ultrastructural staining of ox-

- ytalin and elastic fibers in the periodontal ligament of *Alligator mississippiensis*. *Anat. Rec.* 225:279-287.
- Tamarack, J.L. 1989. Georgia's coastal island alligators, variation in habitat and prey availability, p. 105-118. *In* Crocodiles: their ecology, management and conservation. Proceedings of the 8th working meeting of the IUCN/SSC Crocodile Specialist Group. IUCN, Gland, Switzerland.
- Taplin, L.E. and G.C. Grigg. 1989. Historical zoogeography of the eusuchian crocodylians: a physiological perspective. *Amer. Zool.* 29:885-901.
- , P. Harlow, T.M. Ellis, and W.A. Dunson. 1982. Lingual salt glands in *Crocodylus acutus* and *C. johnstoni* and their absence from *Alligator mississippiensis* and *Caiman crocodylus*. *J. Comp. Physiol.* 149:43-47.
- Taylor, D. 1984. Management implications of an adult female alligator telemetry study. *Proc. Ann. Conf. Southeast. Assoc. Fish. and Wildl. Agencies* 38:222-227.
- . 1986. Fall foods of adult alligators from cypress lake habitat, Louisiana. *Proc. Ann. Conf. Southeast. Assoc. Fish. and Wildl. Agencies* 40:338-341.
- . 1989. A simulated alligator population, p. 221. *In* C.A. Ross (ed.), *Crocodiles and alligators*. Facts on File, New York.
- , N. Kinler, and G. Linscombe. 1991. Female alligator reproduction and associated population estimates. *J. Wildl. Mgmt.* 55:682-688.
- ten Donkelaar, H.J. and G.C. Bangma. 1992. The cerebellum, p. 496-586. *In* C. Gans and P.S. Ulinski (eds.), *Biology of the Reptilia, neurology C, sensorimotor integration*, vol. 17. Univ. Chicago Press, Chicago.
- and R. Nieuwenhuys. 1979. The brainstem, p. 133-200. *In* C. Gans, R.G. Northcutt, and P. Ulinski (eds.), *Biology of the Reptilia, neurology B*, vol. 10. Academic Press, New York.
- ter Borg, J.P. 1986. Aantasting van de eierschaal bij alligatoreieren. *Lacerta* 45:30-32.
- Thompson, B.C., F.E. Potter, Jr., and W.C. Brownlee. 1984. Management plan for the American alligator in Texas. Texas Dept. Parks Wildl., Austin.
- Thompson, M.B. 1989. Patterns of metabolism in embryonic reptiles. *Resp. Physiol.* 76:243-256.
- Tracy, C.R. 1982. Biophysical modeling in reptilian physiology and ecology, p. 275-321. *In* C. Gans and F.H. Pough (eds.), *Biology of the Reptilia, physiology C*, vol. 12. Academic Press, New York.
- Turner, F.B. 1977. The dynamics of populations of squamates, crocodylians and rhynchocephalians, p. 157-264. *In* C. Gans and D.W. Tinkle (eds.), *Biology of the Reptilia, ecology and behaviour A*, vol. 7. Academic Press, New York.
- Turner, J.S. and C.R. Tracy. 1985. Body size and control of heat exchange in alligators. *J. Thermal Biol.* 10:9-11.
- , B. Weigler, and T. Baynes. 1985. Burst swimming of alligators and the effect of temperature. *J. Herpetol.* 19:450-458.
- Ulinski, P.S., D.M. Dacey, and M.I. Sereno. 1992. Optic tectum, p. 241-366. *In* C. Gans and P.S. Ulinski (eds.), *Biology of the Reptilia, neurology C, sensorimotor integration*, vol. 17. Univ. Chicago Press, Chicago, Illinois.
- Underwood, G. 1970. The eye, p. 1-97. *In* C. Gans and T.S. Parsons (eds.), *Biology of the Reptilia, morphology B*, vol. 2. Academic Press, London.
- Underwood, H. 1992. Endogenous rhythms, p. 229-297. *In* C. Gans and D. Crews (eds.), *Biology of the Reptilia, physiology E, hormones, brain, and behavior*, vol. 18. Univ. Chicago Press, Chicago, Illinois.
- Vaillant, L. 1898. Contribution à l'étude des émydosauriens catalogue raisonné des *Jacarettinga* et *Alligator* de la collection du muséum. *Nouv. Arch. Mus. Natl. Hist. Nat. Paris, Ser. 3*, 10:143-212 + 13 pls.
- Ventura, S.C., T.E. Northrup, G. Schneider, J.J. Cohen, and S. Garella. 1989. Transport and histochemical studies of bicarbonate handling by the alligator kidney. *Amer. J. Physiol.* 256:F239-F245.
- Vliet, K.A. 1986. Social behavior of the American alligator, p. 203-211. *In* Crocodiles. Proceedings of the 7th working meeting of the IUCN/SSC Crocodile Specialist Group. IUCN, Gland, Switzerland.
- . 1989. Social displays of the American alligator (*Alligator mississippiensis*). *Amer. Zool.* 29:1019-1031.
- Wagler, J. 1830. Natürliches System der Amphibien, mit vorangehender Classification der Säugethiere und Vögel. J.G. Cotta'schen Buchhandlung, München.
- Wake, M.H. (ed.). 1979. Hyman's comparative vertebrate anatomy. 3rd ed. Univ. Chicago Press, Chicago, Illinois.
- Walls, G.L. 1942. The vertebrate eye and its adaptive radiation. *Cranbrook Inst. Sci. Bull.* (19):xiv + 785 p.
- Warwick, C. 1990. Important ethological and other considerations of the study and maintenance of reptiles in captivity. *Appl. Anim. Behav. Sci.* 27:363-366.
- Watson, A.G. 1986. Seasonal periosteal bone growth in American alligators. *Anat. Rec.* 214:141A.
- Webb, G.J.W., S.C. Manolis, and P.J. Whitehead (eds.). 1987. Wildlife management: crocodiles and alligators. Surrey Beatty and Sons, Chipping Norton, N.S.W.
- Webb, R.G. 1970. Reptiles of Oklahoma. Stovall Mus. Publ., Univ. Oklahoma Press, Norman.
- Weber, R.E. and F.N. White. 1986. Oxygen binding in alligator blood related to temperature, diving, and 'alkaline tide'. *Amer. J. Physiol.* 251:R901-R908.
- Weigel, R.D. 1962. Fossil vertebrates of Vero, Florida. *Florida Geol. Surv., Spec. Publ.* 10:1-59.
- Weldon, P.J., W.G. Brinkmeier, M.R. Banta, and H. Fortunato. 1992. Gular pumping responses by juvenile American alligators (*Alligator mississippiensis*) to meat scents. *Chem. Senses* 17: 79-83.
- and M.W.J. Ferguson. 1993. Chemoreception in crocodylians: anatomy, natural history, and empirical results. *Brain Behav. Evol.* 41:239-245.
- and L. McNease. 1991. Does the American alligator distinguish between venomous and nonvenomous snake prey? *Herpetologica* 47:401-404.
- and H.W. Sampson. 1987. Paracloacal glands of *Alligator mississippiensis*: a histological and histochemical study. *J. Zool. (London)* 212:109-115.
- and ———. 1988. The gular glands of *Alligator mississippiensis*: histology and preliminary analysis of lipoidal secretions. *Copeia* 1988:80-86.
- , T.P. Scott, and M.J. Tanner. 1990a. Analysis of gular and paracloacal gland secretions of the American alligator (*Alligator mississippiensis*) by thin-layer chromatography: gland, sex, and individual differences in lipid components. *Chem. Ecol.* 16:3-12.
- , A. Shafagati, and J.W. Wheeler. 1987. Lipids in the gular gland secretion of the American alligator (*Alligator mississippiensis*). *Z. Naturforsch.* 42C:1345-1346.
- , ———, and ———. 1988. Lipids from the paracloacal glands of the American alligator (*Alligator mississippiensis*). *Lipids* 23:727-729.
- , D.J. Swenson, J.K. Olson, and W.G. Brinkmeier. 1990b. The American alligator detects food chemicals in aquatic and terrestrial environments. *Ethology* 85:191-198.
- Wermuth, H. and K. Fuchs. 1983a. *Alligator mississippiensis*, code A-306.001.001.001. *In* P. Dollinger (ed.), CITES identification manual, vol. 3: Reptilia, Amphibia, Pisces. CITES, Lausanne, Switzerland.
- and ———. 1983b. *Alligator mississippiensis*, code L-306.001.001.001. *In* P. Dollinger (ed.), CITES identification manual, vol. 5: parts and derivatives, II. CITES Secr. Conv. and IUCN, Gland, Switzerland.
- and R. Mertens. 1961. Schildkröten, Krokodile, Brückenechsen. Gustav Fischer Verlag, Jena.
- Westergaard, B. 1988. The pattern of embryonic tooth initiation in reptiles. *Mem. Mus. Natl. Hist. Nat. Ser. C. Sci. Terre* 53:55-63.
- and M.W.J. Ferguson. 1986. Development of the dentition in *Alligator mississippiensis*. Early embryonic development in the lower jaw. *J. Zool. (London)* 210:575-597.
- and ———. 1987. Development of the dentition in *Alligator mississippiensis*. Later development in the lower jaws of embryos, hatchlings and young juveniles. *J. Zool. (London)* 212:191-222.
- and ———. 1990. Development of the dentition in *Alligator mississippiensis*. Upperjaw dental and craniofacial development in embryos, hatchlings, and young juveniles, with a comparison to lower jaw development. *Amer. J. Anat.* 187:393-421.
- Wettstein, O. 1937. Ordnung der Klasse Reptilia: Crocodylia, p. 236-320. *In* W. Kikenthal and T. Krumbach (eds.), *Handbuch der Zoologie*, vol. 7, Walter de Gruyter and Co., Berlin.
- . 1954. Sauropsida: Allgemeines — Reptilia 4, Lieferung, p. 321-424. *In* J.-G. Helmcke and H.V. Lengerkan (eds.), *Handbuch der Zoologie*, vol. 7. Walter de Gruyter and Co., Berlin.
- Wever, E.G. 1978. The reptile ear. Its structure and function. Princeton Univ. Press, Princeton, New Jersey.
- White, F.N. 1976. Circulation, p. 275-334. *In* C. Gans and W.R. Daw-

- son (eds.), *Biology of the Reptilia, physiology A*, vol. 5. Academic Press, London.
- Whittier, J.M. and R.R. Tokarz. 1992. Physiological regulation of sexual behavior in female reptiles, p. 24-69. *In* C. Gans and D. Crews (eds.), *Biology of the Reptilia, physiology E, hormones, brain, and behavior*, vol. 18. Univ. Chicago Press, Chicago, Illinois.
- Wink, C.S. and R.M. Elsey. 1986. Changes in femoral morphology during egg-laying in *Alligator mississippiensis*. *J. Morphol.* 189:183-188.
- , —, and M. Bouvier. 1990a. Porosity of eggshells from wild and captive, pen-reared alligators (*Alligators mississippiensis*). *J. Morphol.* 203:35-39.
- , —, and —. 1990b. The relationship of pores and mammillae on the inner surface of the eggshell of the alligator (*Alligator mississippiensis*). *J. Morphol.* 204:227-233.
- , —, and E.M. Hill. 1987. Changes in femoral robusticity and porosity during the reproductive cycle of the female alligator (*Alligator mississippiensis*). *J. Morphol.* 193:317-321.
- , —, M. St. Onge, and M.L. Zimny. 1989. Neural elements in the cruciate ligaments and menisci of the knee joint of the American alligator, *Alligator mississippiensis*. *J. Morphol.* 202:165-172.
- Wolfe, J.L., D.K. Bradshaw, and R.H. Chabreck. 1987. Alligator feeding habits: new data and a review. *Northeast Gulf Sci.* 9:1-8.
- Wood, J.M., A.R. Woodward, S.R. Humphrey, and T.C. Hines. 1985. Night counts as an index of American alligator population trends. *Wildl. Soc. Bull.* 13:262-273.
- Wood, S.C. and C.J.M. Lenfant. 1976. Respiration: mechanics, control and gas exchange, p. 225-274. *In* C. Gans and W.R. Dawson (eds.), *Biology of the Reptilia*, vol. 5, physiology A. Academic Press, London.
- Woodward, A.R., T.C. Hines, C.L. Abercrombie, and J.D. Nichols. 1987. Survival of young American alligators on a Florida lake. *J. Wildl. Mgmt.* 51:931-937.
- , M.J. Jennings, and H.F. Percival. 1989. Egg collecting and hatch rates of American alligator eggs in Florida. *Wildl. Soc. Bull.* 17: 124-130.
- Wrublik, J.M., L.J. Hord, and D.N. David. 1992. *Alligator mississippiensis* (American alligator). Nest material. *Herpetol. Rev.* 23:80.
- Yamada, J., V.J.M. Campos, N. Kitamura, A.C. Pacheco, T. Yamashita, and N. Yamaiharu. 1987. An immunohistochemical study of the endocrine cells in the gastrointestinal mucosa of the *Caiman latirostris*. *Arch. Histol. Japan* 50:229-241.
- Yu, T.-C. and T.-Y. Tung. 1987. Studies on the culture of two kinds of crocodile (*Caiman latirostris* and *Alligator mississippiensis*). *Bull. Taiwan Fish. Res. Inst.* (42):211-215.
- and —. 1988. Studies on the culture of Alligatoridae, *Caiman latirostris* and *Alligator mississippiensis*. *Bull. Taiwan Fish. Res. Inst.* (44):119-125.
- and —. 1989. Studies on the culture of Alligatoridae, *Caiman latirostris* and *Alligator mississippiensis*. *Bull. Taiwan Fish. Res. Inst.* (46):139-143.
- Zhang, Y. 1988. A discussion on the morphological function of crocodilia's heart. *Chinese J. Zool.* 23:9-12.

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