

Carbohydrate Supplementary Materials

TABLE 1 Circulating Concentration of Glucose in Avian Species

(Note: additional species have been added since *Avian Physiology* went to press)

Taxa [‡]	Genus, Species	Plasma/Serum Glucose		Reference
		mg/dL	mmoles l ⁻¹	
Order Accipitriformes				
Family Accipitridae				
	African Fish Eagle (<i>Haliaeetus vocifer</i>)	223	12.4	Hollamby <i>et al.</i> , 2004
	Bald Eagle (<i>Haliaeetus leucocephalus</i>)	315.5	17.6	Hoffman <i>et al.</i> , 1981
	Black Kite (<i>Milvus migrans</i>)	350	19.4	Ferrer <i>et al.</i> , 1987
	Bonelli's Eagle (<i>Hieraaetus fasciatus</i>)	353	19.6	Ferrer <i>et al.</i> , 1987
	Booted Eagle (<i>Hieraaetus pennatus</i>)	292	16.2	Ferrer <i>et al.</i> , 1987
	Bearded Vulture (<i>Gypaetus barbatus</i>)	239	13.3	Hernández and Margalida, 2010
	Cape Griffon (<i>Gyps coprotheres</i>)	236	13.1	Van Heerden <i>et al.</i> , 1987
	Common Buzzard (<i>Buteo buteo</i>)	362	20.1	Ferrer <i>et al.</i> , 1987; Garcia-Rodriguez <i>et al.</i> , 1987
	Egyptian Vulture (<i>Neophron percnopterus</i>)	319	17.7	Polo <i>et al.</i> , 1992
	Eurasian Griffon (<i>Gyps fulvus</i>)	267	15.3	Mean: Ferrer <i>et al.</i> , 1987; Polo <i>et al.</i> , 1992
	Galapagos Hawk (<i>Buteo galapagoensis</i>)		15.1	Deem <i>et al.</i> , 2012
	Golden Eagle (<i>Aquila chrysaetos</i>)	368	18.6	Mean: O'Donnell <i>et al.</i> , 1978; Polo <i>et al.</i> , 1992
	Hen Harrier (<i>Circus cyaneus</i>)	369	20.5	O'Donnell <i>et al.</i> , 1978
	Marsh Harrier (<i>Circus aeruginosus</i>)	196	10.9	Lavin <i>et al.</i> , 1992a
	Northern Goshawk (<i>Accipiter gentilis</i>)	496	27.6	Stout <i>et al.</i> , 2010
	Red-tailed Hawk (<i>Buteo jamaicensis</i>)	346	19.2	O'Donnell <i>et al.</i> , 1978
	Snail Kite (<i>Rostrhamus sociabilis</i>)	336	18.7	Gee <i>et al.</i> , 1981

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TABLE 1 Circulating Concentration of Glucose in Avian Species—cont'd(Note: additional species have been added since *Avian Physiology* went to press)

Taxa [‡]	Genus, Species	Plasma/Serum Glucose		Reference
		mg/dL	mmoles l ⁻¹	
	Spanish Imperial Eagle (<i>Aquila adalberti</i>)	317	17.6	Mean: Ferrer <i>et al.</i> , 1987; Polo <i>et al.</i> , 1992; García-Montijano <i>et al.</i> , 2002
	Swamp Harrier (<i>Circus approximans</i>)	349	19.4	Calculated from Youl, 2009
Family Cathartidae				
	California Condor (<i>Gymnogyps californianus</i>)	302	16.8	Dujowich <i>et al.</i> , 2005
	Andean Condor (<i>Vultur gryphus</i>)	337	18.7	Gee <i>et al.</i> , 1981
Order Anseriformes				
	Mallard (<i>Anas platyrhynchos</i>)	205	11.3	Fairbrother <i>et al.</i> , 1990
	Pacific Black Duck (<i>Anas superciliosa</i>)	176	9.8	Mulley, 1979
	Harlequin Duck (<i>Histrionicus histrionicus</i>)	331	18.4	Stoskopf <i>et al.</i> , 2010
	Common Pochard (<i>Aythya ferina</i>)	274	15.2	Balasz <i>et al.</i> , 1974
	Common Eider (<i>Somateria mollissima</i>)	209	11.6	Hollmén <i>et al.</i> , 2001
	Canada Goose (<i>Branta canadensis</i>)	236	13.1	Mori and George, 1978; Gee <i>et al.</i> , 1981
	Hawaiian Goose (<i>Branta sandvicensis</i>)	232	12.9	Gee <i>et al.</i> , 1981
	Emden Goose (<i>Anser anser</i>)	222	12.3	Gee <i>et al.</i> , 1981
	Emperor Goose (<i>Anser canagica</i>)	235	13.1	Franson <i>et al.</i> , 2009
	Tule White-fronted Goose (<i>Anser albifrons</i>)	232	12.9	Gee <i>et al.</i> , 1981
	Snow Goose (<i>Anser caerulescens</i>)	175	9.8	Boismenu <i>et al.</i> , 1992
	Black-necked Swan (<i>Cygnus melanocoryphus</i>)	134	7.4	Artacho <i>et al.</i> , 2007
	Mute Swan (<i>Cygnus olor</i>)	146	8.1	Mikšik and Hodný, 1992; Dolka <i>et al.</i> , 2014
	Trumpeter Swan (<i>Cygnus buccinator</i>)	134.5	7.5	Olsen <i>et al.</i> , 2002
	Tundra Swan (<i>Cygnus columbianus</i>)	294	16.3	Milani <i>et al.</i> , 2012
	Coscoroba Swan (<i>Coscoroba coscoroba</i>)	115	6.4	Pérez Calabuig <i>et al.</i> , 2010
Order Apodiformes				
	Anna's Hummingbird (<i>Calypte anna</i>)	286	15.9	Beuchat and Chong, 1998
	Costa's Hummingbird (<i>Calypte costae</i>)	315	17.5	Beuchat and Chong, 1998
	Ruby-throated Hummingbird (<i>Archilochus colubris</i>)	306	17.0	Beuchat and Chong, 1998
Order Caprimulgiformes				
	Tawny Frogmouth (<i>Podargus strigoides</i>)	351	19.5	McCracken, 2003

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Taxa [‡]	Genus, Species	Plasma/Serum Glucose		Reference
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Order Charadriiformes				
Family Alcidae				Newman <i>et al.</i> , 1997
	Ancient Murrelet (<i>Synthliboramphus antiquus</i>)	272	15.1	Newman <i>et al.</i> , 1997
	Cassin's Auklet (<i>Ptychoramphus aleuticus</i>)	245	13.6	Newman <i>et al.</i> , 1997
	Common Murre (<i>Uria aalge</i>)	313	17.4	Newman <i>et al.</i> , 1997
	Crested Auklet (<i>Aethia cristatella</i>)	238	13.2	Newman <i>et al.</i> , 1997
	Horned Puffin (<i>Fratercula corniculata</i>)	317	17.6	Newman <i>et al.</i> , 1997
	Marbled Murrelet (<i>Brachyramphus marmoratus</i>)	229	12.7	Newman <i>et al.</i> , 1997
	Parakeet Auklet (<i>Aethia psittacula</i>)	299	16.6	Newman <i>et al.</i> , 1997
	Pigeon Guillemot (<i>Cephus columba</i>)	322	17.9	Newman <i>et al.</i> , 1997
	Tufted Puffin (<i>Fratercula cirrhata</i>)	279	15.5	Newman <i>et al.</i> , 1997
Family Burhinidae				
	Double-striped Thick-knee (<i>Burhinus bistriatus</i>)	251	13.9	Ball, 2003
Family Charadriidae				
	Killdeer (<i>Charadrius vociferus</i>)	359	19.9	Ball, 2003
	Piping Plover (<i>Charadrius melodus</i>)	341	18.9	Ball, 2003
Family Haematopodidae				
	American Oystercatcher (<i>Haematopus palliatus</i>)	337.2	18.7	Carlson-Bremer <i>et al.</i> , 2010
Family Jacanidae				
	Wattled Jacana (<i>Jacana jacana</i>)	326	18.1	Ball, 2003
Family Laridae				
	Black-legged Kittiwake (<i>Rissa tridactyla</i>)	265	14.7	Balasch <i>et al.</i> , 1974
	Common Black-headed Gull (<i>Larus ridibundus</i>)	331	18.4	Mean Newman <i>et al.</i> , 1997; Mostaghni <i>et al.</i> , 2005
	Glaucous-winged Gull (<i>Larus glaucescens</i>)	320	17.8	Newman <i>et al.</i> , 1997
	European Herring Gull (<i>Larus argentatus</i>)	468	22.9	Mean: Balasch <i>et al.</i> , 1974; Fox <i>et al.</i> , 2007
	Yellow-legged Gull (<i>Larus cachinnans</i>)	366	20.3	Alonso-Alvarez and Ferrer, 2001
Family Recurvirostridae				
	American Avocet (<i>Recurvirostra americana</i>)	266	14.8	Ball, 2003
	Black-winged Stilt (<i>Himantopus himantopus</i>)	275	15.3	Ball, 2003

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Taxa [‡]	Genus, Species	Plasma/Serum Glucose		Reference
		mg/dL	mmoles l ⁻¹	
Family Scolopacidae				
	Bar-tailed Godwit (<i>Limosa lapponica</i>)	250	13.9	Landy <i>et al.</i> , 2005
	Red Knot (<i>Calidris canutus</i>)	323	17.9	D'Amico <i>et al.</i> , 2010
Family Stercorariidae				
	South Polar Skua (<i>Stercorarius maccormicki</i>)	353	19.6	Deguirmandjian Rosa <i>et al.</i> , 1992
Family Sternidae				
	Sooty Tern (<i>Sterna fuscata</i>)	267	14.8	Work, 1996
Order Ciconiiformes				
Family Ardeidae				
	Black-crowned Night-heron (<i>Nycticorax nycticorax</i>)	303	15.05	Mean: Fontenelle, 2001; Hoffman <i>et al.</i> , 2009
	Cattle Egret (<i>Bubulcus ibis</i>)	265	14.7	Fontenelle, 2001
	Great Egret (<i>Egretta alba</i>)	251	13.9	Hoffman <i>et al.</i> , 2005
	Little Egret (<i>Egretta garzetta</i>)	302	16.8	Fontenelle, 2001
	Snowy Egret (<i>Egretta thula</i>)	283	15.7	Hoffman <i>et al.</i> , 2009
Family Ciconiidae				
	Painted Stork (<i>Mycteria leucocephala</i>)	270.5	15.0	Aengwanich <i>et al.</i> , 2002
Family Threskiornithidae				
	Black-faced Spoonbill (<i>Platalea minor</i>)	243	13.5	Chou <i>et al.</i> , 2008
	Northern Bald Ibis (<i>Geronticus eremita</i>)	252	14.0	Dutton <i>et al.</i> , 2002
	Puna Ibis (<i>Plegadis ridgwayi</i>)	302	16.8	Coke <i>et al.</i> , 2004
	White Ibis (<i>Threskiouris melanocephalus</i>)	226	12.6	Aengwanich and Tanomtong, 2004
Order Columbiformes				
	Mourning Dove (<i>Zenaida macroura</i>)	340	18.9	Smith <i>et al.</i> , 2011.
	Ring-necked Turtle-dove (<i>Streptopelia roseogrisea</i>)	238	13.2	Lea <i>et al.</i> , 1992
	Rock Pigeon (<i>Columba livia</i>)	279	15.5	Gayathri <i>et al.</i> , 2004
	Nicobar Pigeon (<i>Caloenas nicobarica</i>)	289.8	16.1	Peinado <i>et al.</i> , 1992a
	Pheasant Pigeon (<i>Otidiphaps nobilis</i>)	354.6	19.7	Peinado <i>et al.</i> , 1992a
	Pink-headed Fruit Dove (<i>Ptilinopus porphyreus</i>)	290.7	16.1	Schultz, 2003.
	Southern Crowned or Scheep Maker's crowned Pigeon (<i>Goura scheepmakeri</i>)	351	19.5	Peinado <i>et al.</i> , 1992a
	Victoria Crowned Pigeon (<i>Goura victoria</i>)	255.6	14.2	Peinado <i>et al.</i> , 1992a

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Taxa [‡]	Genus, Species	Plasma/Serum Glucose		Reference
		mg/dL	mmoles l ⁻¹	
	Western Crowned Pigeon (<i>Goura cristata</i>)	250.2	13.9	Peinado et al., 1992a
Order Coliiformes				
	Blue-naped Mousebird (<i>Urocolius macrourus</i>)	317.5	17.6	Calculated from Pye, 2003
	Speckled Mousebird (<i>Colius striatus</i>)	301	16.7	Pye, 2003
Order Coraciiformes				
	Abyssinian Ground Hornbill or Northern Ground Hornbill (<i>Bucorvus abyssinicus</i>)	271	15.1	Dutton, 2003
	Blue-crowned Motmot (<i>Momotus momota</i>)	347	19.3	Dutton, 2003
	Great Hornbill (<i>Buceros bicornis</i>)	232	12.9	Dutton, 2003
	Green Wood Hoopoe (<i>Phoeniculus purpureus</i>)	378	21.0	Dutton, 2003
	Hoopoe (<i>Upupa epops</i>)	307	17.1	Dutton, 2003
	Lilac-breasted Roller (<i>Coracias caudatus</i>)	331	18.4	Dutton, 2003
	Micronesian Kingfisher (<i>Todiramphus cinnamominus</i>)	324	18.0	Dutton, 2003
	Southern Carmine Bee-eater (<i>Merops nubicoides</i>)	360	20.0	Dutton, 2003
Order Cuculiformes				
	Greater Roadrunner (<i>Geococcyx californianus</i>)	387	21.5	Abou-Madi, 2003
	Guira Cuckoo (<i>Guira guira</i>)	356	19.8	Abou-Madi, 2003
Order Falconiformes				
Family Falconidae				
	American Kestrel (<i>Falco sparverius</i>)	305	16.9	Dressen et al., 1999
	Common Kestrel (<i>Falco tinnunculus</i>)	393	21.8	Ferrer et al., 1987
	Peregrine Falcon (<i>Falco peregrinus</i>)	316	17.6	Gee et al., 1981
	Prairie Falcon (<i>Falco mexicanus</i>)	414	23.0	O'Donnell et al., 1978
Order Galliformes				
	Attwater's Prairie Chicken (<i>Tympanuchus cupido</i>)	180	10.0	West et al., 2002
	Black-fronted Piping-guan (<i>Penelope jacutinga</i>)	298	16.5	Motta et al., 2013
	Bobwhite Quail (<i>Colinus virginianus</i>)	336	18.9	Mean: Gee et al., 1981; Johnson et al., 2007

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Taxa [‡]	Genus, Species	Plasma/Serum Glucose		Reference
		mg/dL	mmoles l ⁻¹	
	Chicken or Domestic Fowl (<i>Gallus gallus</i>)	235	13.1	Mean: Scanes; 2008; Simon <i>et al.</i> , 2011
	Chukar (<i>Alectoris chukar</i>)	296	16.6	Mean: Ozek and Bahtiyarca, 2004; Nazifi <i>et al.</i> , 2011a
	Grouse (<i>Lagopus lagopus</i>)	270	15.0	Korhonen, 1987
	Helmeted Guineafowl (<i>Numida meleagris</i>)	366.9	20.4	Balasch <i>et al.</i> , 1973
	Horned Guan (<i>Oreophasis derbianus</i>)	280	15.5	Cornejo <i>et al.</i> , 2014
	Japanese Quail (<i>Coturnix japonica</i>)	292	16.2	Calculated from data in Itoh <i>et al.</i> , 1998 and Scholtz <i>et al.</i> , 2009
	Peacock (<i>Pavo cristatus</i>)	315.7	17.5	Balasch <i>et al.</i> , 1973
	Red Jungle Fowl (<i>Gallus gallus</i>)	239.4	13.3	Mean: Balasch <i>et al.</i> , 1973; Zulkifli <i>et al.</i> , 1999; Soleimani and Zulkifli, 2010
	Red-legged Partridge (<i>Alectoris rufa</i>)	356	19.8	Lloyd and Gibson 2006
	Ring-necked Pheasant (<i>Phasianus colchicus</i>)	290	16.1	Mean: Balasch <i>et al.</i> , 1973; Lloyd and Gibson, 2006; Nazifi <i>et al.</i> , 2011b
	Rock Partridge (<i>Alectoris graeca</i>)	293	16.3	Mean: Balasch <i>et al.</i> , 1973; Ozbey and Esen, 2007
	Sage Grouse (<i>Centrocercus urophasianus</i>)	328	18.2	Dunbar <i>et al.</i> , 2005; Dyer <i>et al.</i> , 2009
	Turkey (<i>Meleagris gallopavo</i>)	355.5	19.7	Lisano and Kennamer, 1977
	Western Capercaillie (<i>Tetrao urogallus</i>)	396	22.0	Lavin <i>et al.</i> , 1992b
Order Gaviformes				
	Great Northern Diver (<i>Gavia immer</i>)	189	10.5	Haefele <i>et al.</i> , 2005
Order Gruiformes				
Family Gruidae				
	Florida Sandhill Crane (<i>Grus canadensis pratensis</i>)	229	12.7	Gee <i>et al.</i> , 1981
	Greater Sandhill Crane (<i>Grus canadensis tabida</i>)	264	14.7	Gee <i>et al.</i> , 1981
	Mississippi Sandhill Crane (<i>Grus canadensis pulla</i>)	216	12.0	Gee <i>et al.</i> , 1981
	Red-crowned Crane (<i>Grus japonensis</i>)	267	14.8	Carpenter, 2003
	Siberian Crane (<i>Grus leucogeranus</i>)	266	14.7	Carpenter, 2003
	Wattled Crane (<i>Bugeranus carunculatus</i>)	266	14.7	Carpenter, 2003
	Whooping Crane (<i>Grus americana</i>)	232	12.9	Gee <i>et al.</i> , 1981

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Family Rallidae				
	Guam Rail (<i>Gallirallus owstoni</i>)	276	15.3	Fontenot <i>et al.</i> , 2006 (units corrected)
	Takahē (<i>Porphyrio hochstetteri</i>)	194	10.8	Calculated from Youl, 2009
Family Otididae				
	Buff-crested Bustard (<i>Lophotis gindiana</i>)	366.5	20.4	Bailey <i>et al.</i> , 1998a
	Houbara Bustard (<i>Chlamydotis undulate</i>)	304	16.9	Bailey <i>et al.</i> , 1999
	Kori Bustard (<i>Ardeotis kori</i>)	248	13.8	Mean: D'Aloia <i>et al.</i> , 1996; Bailey <i>et al.</i> , 1999
	White-Bellied Bustard (<i>Eupodotis senegalensis</i>)	344	19.1	Bailey <i>et al.</i> , 1998b
Order Passeriformes				
	African Pied Crow (<i>Corvus albus</i>)	295.5	16.4	Ihedioha <i>et al.</i> , 2011
	Abert's Towhee (<i>Melospiza aberti</i>)	324	18.0	Davies <i>et al.</i> , 2013
	American Common Crow (<i>Corvus brachyrhynchos</i>)	366	21.4	Gentz, 2003
	Asian Fairy-bluebird (<i>Irena puella</i>)	294	16.3	Gentz, 2003
	Black-capped Chickadee (<i>Poecile atricapillus</i>)	133	7.4	Bairlein, 1983
	Blue-faced Honeyeater (<i>Entomyzon cyanotis</i>)	357	19.8	Gentz, 2003
	Common Grackle (<i>Quiscalus quiscula</i>)	335	18.6	Martinez del Rio <i>et al.</i> , 1988
	Common Starling (<i>Sturnus vulgaris</i>)	330	18.3	Martinez del Rio <i>et al.</i> , 1988
	Curve-Billed Thrashers <i>Toxostoma curvirostre</i>	279	15.5	Fokidis <i>et al.</i> , 2011, 2012
	Garden Warbler (<i>Silva borin</i>)	260	14.4	Bairlein, 1983; Totzke <i>et al.</i> , 1998
	Green Broadbill (<i>Calyptomena viridis</i>)	281	15.6	Gentz, 2003
	Grey Catbird (<i>Dumetella carolinensis</i>)	378	21.0	Malcarney <i>et al.</i> , 1994
	Hooded Pitta (<i>Pitta sordida</i>)	136	7.6	Gentz, 2003
	House Sparrow (<i>Passer domesticus</i>)	308	17.1	Khalilieh <i>et al.</i> , 2012
	Purple headed Glossy Starling (<i>Lamprolornis purpureiceps</i>)	294	16.3	Malcarney <i>et al.</i> , 1994
	Raven (<i>Corvus corax</i>)	360	20.0	Balasz <i>et al.</i> , 1974
	Red-crested Cardinal (<i>Paroaria coronata</i>)	401	22.3	Gentz, 2003
	Red-winged Blackbird (<i>Agelaius phoeniceus</i>)	318	17.7	Martinez del Rio <i>et al.</i> , 1988

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	Rook (<i>Corvus frugilegus</i>)	236	13.1	Mikšik and Hodný, 1992
	Rufous-collared Sparrow (<i>Zonotrichia capensis</i>)	240	13.3	Ruiz et al., 2002
	Silver-eared Mesia (<i>Leiothrix argentauris</i>)	444	24.7	Gentz, 2003
	Southern Red Bishop (<i>Euplectes orix</i>)	309	17.2	Gentz, 2003
	Superb Starling (<i>Lamprotornis superbus</i>)	335	18.6	Gentz, 2003
	Venezuelan Troupial (<i>Icterus icterus</i>)	375	20.8	Gentz, 2003
	White-crowned Sparrow (<i>Zonotrichia leucophrys</i>)	448	24.9	Boswell et al., 1997
Order Pelicaniformes				
Family Pelecanidae				
	Brown Pelican (<i>Pelecanes occidentalis</i>)	243.5	13.5	Wolf et al., 1985; Balasch et al., 1974
	Pink-backed Pelican (<i>Pelecanus rufescens</i>)	219	12.2	Weber, 2003
Family Frigatidae				
	Great Frigatebird (<i>Fregata minor</i>)	123	6.8	Work, 1996
Family Phaethontidae				
	Red-tailed Tropicbird (<i>Phaethon rubricauda</i>)	231	12.8	Work, 1996
Family Phalacrocoracidae				
	Flightless Cormorant (<i>Phalacrocorax harrisi</i>)	128	7.1	Travis et al., 2006a
	Great Cormorant (<i>Phalacrocorax carbo</i>)	238	13.2	Balasch et al., 1974
	Guanay Cormorant (<i>Phalacrocorax bougainvillii</i>)	271	15.1	Weber, 2003
	Imperial Shag (<i>Phalacrocorax atriceps</i>)	195	10.8	Gallo et al., 2013
	Pelagic Cormorant (<i>Phalacrocorax pelagicus</i>)	223	12.4	Newman et al., 1997
Family Sulidae				
	Brown Booby (<i>Sula leucogaster</i>)	264	14.7	Work, 1999
	Northern Gannet (<i>Sula bassana</i>)	216	12.0	Balasch et al., 1974
	Red-foot Booby (<i>Sula sula</i>)	179	9.9	Work, 1996
Order Phoenicopteriformes				
	Chilean Flamingo (<i>Phoenicopterus chiliensis</i>)	203	11.3	Peinado et al., 1992
	Greater flamingo (<i>Phoenicopterus tuber</i>)	202	11.2	Peinado et al., 1992

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	Rosy flamingo (<i>Phoenicopterus ruber</i>)	205	11.4	Peinado et al., 1992
	Lesser Flamingo (<i>Phoeniconais minor</i>)	166	9.2	Peinado et al., 1992
Order Procellariiformes				
	Galápagos Petrel (<i>Pterodroma phaeopygia</i>)	329	18.3	Work, 1996
	Laysan Albatross (<i>Diomedea immutabilis</i>)	125.3	7.0	Work, 1996
	Northern Fulmar (<i>Fulmarus glacialis</i>)	229	12.6	Newman et al., 1997
	Southern Giant Petrel (<i>Macronectes giganteus</i>)	284	15.8	Uhart et al., 2003
	Wedge-tailed Shearwater (<i>Puffinus pacificus</i>)	248	13.8	Work, 1996
	Waved Albatross (<i>Diomedea irrorata</i>)	229	12.7	Padilla et al., 2003
Order Psittaciformes				
	African Grey Parrot (<i>Psittacus erithacus</i>)	248	13.8	Lumeij and Overduin, 1990; Polo et al., 1998
	Yellow-crowned Amazon (<i>Amazona ochrocephala</i>)	252	14.0	Polo et al., 1998
	Blue-fronted Amazon Parrot (<i>Amazona aestiva</i>)	252	14.0	Deem et al., 2005
	Budgerigar (<i>Melopsittacus undulates</i>)	348	19.3	Scope et al., 2005
	Cuban Amazon Parrot (<i>Amazona leucocephala</i>)	251	13.9	Tell and Citino, 1992
	Kakapo (<i>Strigops habroptilus</i>)	223	12.4	Low et al., 2006
	Kea (<i>Nestor notabilis</i>)	281	15.6	Calculated from Youl, 2009
	Macaw (<i>Ara rubrogenys</i>)	295	16.4	García del Campo et al., 1991
	Palm Cockatoo (<i>Probosciger aterrimus</i>)	281	15.6	Polo et al., 1998
	Red-fronted Macaw (<i>Ara rubrogenys</i>)	295	16.4	García del Campo et al., 1991
	Spix's Macaw (<i>Cyanopsitta spixii</i>)	324	18.0	Foldenauer et al., 2007
	St Vincent Parrot (<i>Amazona guildingii</i>)	212.4	11.8	Deem et al., 2008
	Thick-billed Parrot (<i>Rhynchopsitta pachyrhyncha</i>)	278	15.4	Waldoch et al., 2009
	White Cockatoo (<i>Cacatua alba</i>)	235	13.1	Polo et al., 1998
	Hyacinthine Macaw (<i>Anodorhynchus hyacinthinus</i>)	261	14.5	Polo et al., 1998
	Blue and yellow Macaw (<i>Ara ararauna</i>)	272	15.1	Polo et al., 1998
	Green-winged Macaw (<i>Ara chloroptera</i>)	288	16.0	Polo et al., 1998
	Scarlet Macaw (<i>Ara macao</i>)	248	13.8	Polo et al., 1998
	Red Lory (<i>Eos bornea</i>)	337	18.7	Polo et al., 1998

(Continued)

TABLE 1 Circulating Concentration of Glucose in Avian Species—cont'd(Note: additional species have been added since *Avian Physiology* went to press)

Taxa [‡]	Genus, Species	Plasma/Serum Glucose		Reference
		mg/dL	mmoles l ⁻¹	
	Rose-ringed Parakeet (<i>Psittacula krameri</i>)	222	12.3	Anan and Maitra, 1995
Order Pteroclidiformes				
	Pin-tailed Sandgrouse (<i>Pterocles alchata</i>)	392	21.8	Lierz and Fenske, 2004
Order Sphenisciformes				
	Adélie Penguin (<i>Pygoscelis adeliae</i>)	299.5	16.6	Aquilera <i>et al.</i> , 1993; Vleck and Vleck 2002
	Chinstrap Penguin (<i>Pygoscelis Antarctica</i>)	279	15.5	Aquilera <i>et al.</i> , 1993; Ferrer <i>et al.</i> , 1994
	Emperor Penguin (<i>Aptenodytes forsteri</i>)	281	15.6	Groscolas and Rodriguez, 1981
	Galápagos Penguin (<i>Spheniscus mendiculus</i>)	218	12.1	Travis <i>et al.</i> , 2006b
	Gentoo penguin (<i>Pygoscelis papua</i>)	236	13.1	Aquilera <i>et al.</i> , 1993
	Humboldt Penguin (<i>Spheniscus humboldti</i>)	226.8	12.6	Wallace <i>et al.</i> , 1995
	Jackass Penguin (<i>Spheniscus demersus</i>)	195.8	10.9	Cray <i>et al.</i> , 2010
	King Penguin (<i>Aptenodytes patagonicus</i>)	207	11.5	Bernard <i>et al.</i> , 2002
	Rockhopper Penguin (<i>Eudyptes chrysomes</i>)	233	12.9	Karesh <i>et al.</i> , 1999
Order Strigiformes				
	Barn Owl (<i>Tyto alba</i>)	272	15.1	Ferrer <i>et al.</i> , 1987
	Barred Owl (<i>Strix varia</i>)	296.6	16.5	Aguilar, 2003
	Burrowing Owl (<i>Athene cunicularia</i>)	328.7	18.3	Aguilar, 2003
	Eagle Owl (<i>Bubo bubo</i>)	386.5	21.5	Mean: Ferrer <i>et al.</i> , 1987; Garcia-Rodriguez <i>et al.</i> , 1987
	Eastern Screech Owl (<i>Megascops asio</i>)	334.6	18.6	Aguilar, 2003
	Great Grey Owl (<i>Strix nebulosa</i>)	315.7	17.6	Aguilar, 2003
	Great Horned Owl (<i>Bubo virginianus</i>)	375	20.8	O'Donnell <i>et al.</i> , 1978
	Short-eared Owl (<i>Asio flammeus</i>)	292.7	16.3	Aguilar, 2003
	Snowy Owl (<i>Bubo scandiacus</i>)	339.1	18.8	Aguilar, 2003
	Spectacled Owl (<i>Pulsatrix perspicillata</i>)	325.6	18.1	Aguilar, 2003
Order Trogoniformes				
	Crested Quetzal (<i>Pharomachrus antisianus</i>)	288	16.0	Neiffer, 2003
	Golden-headed Quetzal (<i>Pharomachrus auriceps</i>)	245	13.6	Neiffer, 2003
	Javan Trogon (<i>Apalharpactes reinwardtii</i>)	332	18.4	Neiffer, 2003

TABLE 1 Circulating Concentration of Glucose in Avian Species—cont'd(Note: additional species have been added since *Avian Physiology* went to press)

Taxa [‡]	Genus, Species	Plasma/Serum Glucose		Reference
		mg/dL	mmoles l ⁻¹	
	White-tailed Trogon (<i>Trogon chionurus</i>)	339	18.8	Neiffer, 2003
Paleognathae				
	Cassowary (<i>Casuarus</i> sp.)	184.7	10.2	Angel, 1995
	Emu (<i>Dromaius novaehollandiae</i>)	160	8.9	Mean: Okotie-Eboh <i>et al.</i> , 1992; Angel, 1995
	Greater Rhea (<i>Rhea americana</i>)	212	11.8	Uhart <i>et al.</i> , 2006
	Ostrich (<i>Struthio camelus</i>)	229	12.7	Calculated from data in Palomeque <i>et al.</i> , 1991; Verstappen <i>et al.</i> , 2002; Okotie-Eboh <i>et al.</i> , 1992

[‡]Classification based on the del Hoyo, J., Elliott, A. and Sargatal, J. eds (1992 - 2013) *Handbook of the Birds of the World. 17 Volumes*, Lynx Ediciones, Barcelona but with families Accipitridae and Cathartidae placed into a separate Order Accipitriformes following the Tree of Life.

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