GLEN C. SANDERSON

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THESES FROM THE

IOWA COOPERATIVE WILDLIFE AND FISHERIES RESEARCH UNITS

1932

to

September 1, 1965

Department of Zoology and Entomology
Iowa State University
Ames, Iowa

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- A. THESES FROM THE WILDLIFE RESEARCH UNIT (On file at Iowa State University Library, Ames, Iowa)
- Andrews, Richard David. 1960. Some disease antibodies in Iowa pheasants. (M.S.)
- Baker, Maurice F. 1939. Age classes of winter cover used by the eastern bobwhite, Colinus virginianus virginianus L., in Davis County, Iowa. (M.S.)
- Baskett, Thomas S. 1942. Production of the ring-necked pheasant (Phasianus colchicus torquatus Gmelin) in north central Iowa. (PhD)
- Bedish, John William. 1964. Studies of the germination and growth of cattail in relation to marsh management. (M.S.)*
- Bennett, Logan J. 1932. A preliminary study of the ecology of the native wild ducks of Iowa. (M.S.)
- . 1937. The ecology and management of the blue-winged teal, Querquedula discors Linnaeus. (PhD)
- Billard, Ruth S. 1947. An ecological study of the Virginia rail (Rallus limicola limicola) and the sora (Porzana carolina) in some Connecticut swamps, 1947. (M.S.)*
- Bliese, John C. W. 1953. Roosting of bronzed grackles and avian associates at Ames, Iowa. (PhD)*
- Boehnke, Roger H. 1954. Winter movements and covey composition of the eastern bob-white, Decatur County, Iowa, 1952-54. (M.S.)
- Boldt, Wilbur J. 1950. Production of the mourning dove, Zenadura macroura (L.), in shelterbelts, Stutsman County, South Dakota, 1950. (M.S.)*
- Bolstad, Roger Ardell. 1962. Ring-necked pheasant and pheasant habitat in Central Iowa. (M.S.)
- Buxton, Frank E. 1951. Food habits of the white-tailed deer, Odocoileus virginianus Boddaert, in Boone County, Iowa. (M.S.)*
- Cabalka, James L. 1952. Resting habits of the raccoon, Procyon lotor hirtus M. and G., in central Iowa. (M.S.)*
- Carter, Dennis Lee. 1957. Production of the mourning dove at Lewis, Iowa, 1956. (M.S.)
- Costa, Robert R. 1951. Food habits of the raccoon, Procyon lotor hirtus M. and G., in central Iowa. (M.S.)*



¹Iowa State Conservation Commission, Iowa State University of Science and Technology; U.S. Department of the Interior, Bureau of Sport Fisheries and Wildlife; and Wildlife Management Institute; cooperating.

^{*}Wildlife theses not financed by the Cooperative Wildlife Unit.

Crabb, Wilfred D. 1940. Food habits of the prairie spotted skunk, Spilogale interrupta (Rafinesque), in southeastern Iowa. (M.S.)

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- . 1943. Ecology and management of the prairie spotted skunk, Spilogale interrupta (Rafinesque), in southeastern Iowa. (PhD)
- Crooks, Malcolm P. 1948. Life history of the field sparrow, Spizella pusilla pusilla (Wilson). (M.S.)*
- Crunden, Charles W. 1954. Techniques in the estimation of a Mearns cottontail population. (M.S.)
- Dreis, Robert E. 1951. Productivity of the wood duck, Aix sponsa (L.), in eastern Louisa County, Iowa, 1951. (M.S.)*
- Elder, James Bruce. 1956. Analysis of factors affecting production and whistling behavior of the eastern bob-white, Colinus v. virginianus L., in Decatur County, Iowa. (PhD)
- Eakins, William W. 1949. Utilization of woody plants as food by Mearns cottontail, Sylvilagus floridanus mearnsii (Allen), in winter. (M.S.)*
- Erickson, Ray C. 1942. Breeding habits of the canvasback, Nyroca valisineria (Wilson), on the Malheur National Wildlife Refuge, Oregon. (M.S.)*
- . 1948. Life history and ecology of the canvasback, Nyroca valisineria (Wilson), in southeastern Oregon. (PhD)
- Ferrier, Ben. 1946. Evaluation of canoe expeditions into the wilderness regions of Canada. (M.S.)*
- Fore, Paul Lewis. 1959. Blood parasites in relation to Iowa pheasants. (M.S.)
- Giles, LeRoy W. 1939. Food habits of the eastern raccoon, <u>Procyon lotor lotor</u>
 L., in eastern Iowa. (M.S.)
- Glover, Fred Arthur. 1949. Nesting and production of waterfowl in northeast Iowa: with special reference to the blue-winged teal, (Anas discora Linnaeus). (PhD)
- Gooden, Samuel Knapp. 1952. Winter behavior of the eastern bob-white, Colinus
 v. virginianus L., on the Decatur County research area, 1951-1952. (M.S.)
- Green, William E 1937. The food and cover relationship in the winter survival of the ring-necked pheasant, Phasianus colchicus torquatus Gmelin. (M.S.)
 - . 1948. The development of experimental management areas for the ringnecked pheasant (<u>Phasianus colchicus torquatus Gmelin</u>), in northern Iowa. (PhD)
 - Grondahl, Carroll Robert. 1952. Winter movements of the ring-necked pheasant,

 Phasianus colchicus torquatus (Gmelin), in Winnebago County,

 Iowa. (M.S.)

Hansen,	Henry Arnold.	1947.	Anatine	duck	production	at	Barringer's	Slough,	
	Clay County, I	lowa.						(M.S.)

- Hamerstrom, F. N. 1935. Studies on the nesting habits of the ring-necked pheasant (Phasianus colchicus torquatus) in northwest Iowa. (M.S.)
- Harris, Hallett J. 1965. Serum calcium, magnesium, phosphorus and chloride levels in ring-necked pheasants in Iowa. (M.S.)*
- Hein, Dale Arthur. 1962. Roosting flight counts as indices to fall wood duck populations in Iowa. (M.S.)
- _____. 1965. Wood duck roosting flight phenomenon. (PhD)
- Henry, Wilbur V. 1942. Studies on the mobility of the white-tailed jack rabbit, <u>Lepus townsendii campanius</u> Hallister. (M.S.)*
- Herke, William Herbert. 1957. Area-sampling census method and summer cover utilization by the bobwhite in southern Iowa. (M.S.)
- Hicks, Ellis. 1940. A comparison of inventory methods applicable to the western fox squirrels (Sciurus niger rufiventer (Geoffroy)). (M.S.)
- 1947. Ecological factors affecting the activity of the western fox squirrel (Sciurus niger rufiventer (Geoffroy)). (PhD)
- Horak, Gerald Joseph. 1964. A comparative study of Virginia and Sora rails with emphasis on foods. (M.S.)*
- Hubbard, Fred H. 1952. Productivity of the cottontail rabbit, Sylvilagus floridanus mearnsii (Allen), in Decatur County, Iowa, 1951. (M.S.)
- Ivins, Robert. 1964. Pre- and post-impoundment studies of waterfowl on Elk Creek Marsh. (M.S.)*
- Johnson, Ancel Meringus. 1956. Effects of weather conditions on the winter activity of Mearns cottontail (Sylvilagus floridanus mearnsi Allen) in Decatur County, Iowa. (M.S.)
- Kaufmann, Gerald Wayne. 1964. Ecology of Elk Creek in relation to its management for marsh wildlife. (M.S.)*
- Klimstra, Willard David. 1948. An investigation of the life history and ecology of the interior bob-white, Colinus virginianus mexicanus L. (M.S.)
- . 1949. Some factors influencing ecology and management of the interior bobwhite quail (Colinus virginianus mexicans L.) on marginal lands in southeastern Iowa. (PhD)
- Kline, Paul D. 1953. Autumnal decimation of Mearns cottontail in Decatur County, Iowa, 1952. (M.S.)
- Klonglan, Eugene DaWayne. 1953. Factors influencing the fall roadside census of the ring-necked pheasant, <u>Phasianus colchicus</u>
 Linnaeus in Winnebago County, Iowa, 1952. (M.S.)

- Klonglan, Eugene DaWayne. 1962. Ecology of pheasant production in southwestern Iowa. (PhD)
- Linder, Raymond L. 1955. Use of rearing cover by Mearns cottontail in Decatur County, Iowa. (M.S.)
- Low, Jessop B. 1939. The production of nyrocine ducks (Anatidae) in Clay and Palo Alto Counties, Iowa. (M.S.)
- . 1941. The ecology and management of the redhead, Nyroca americana (Eyton), in Iowa. (PhD)
- Lyon, David. 1965. Relationship of pheasant populations and soils in central Iowa. (PhD)
- Mangold, Robert Edward. 1950. Fall and winter losses of the eastern bob-white,

 <u>Colinus v. virginianus</u> L., on the Decatur County quail research

 area, 1949-1950. (M.S.)
- Martin, Elwood Monroe. 1959. River float and roosting flight counts as indices to numbers of wood ducks. (M.S.)
- McClure, H. Elliott. 1941. Ecology and management of the mourning dove,

 Zenaidura macroura (Linn.), in southwest Iowa. (PhD)
- Mohler, Levi L. 1941. Fall and winter habits of the greater prairie chicken,

 Tympanuchus cupido americanus (Reichenbach), in southwest Nebraska. (M.S.)*
- Moorman, Robert Bruce. 1942. Comparison of production of eastern bob-white,
 Colinus v. virginianus L., on an experimental game management area
 in southern Iowa for 1940 and 1941. (M.S.)
- Newman, Duane Emil. 1957. Factors influencing the winter roadside census of the cottontail rabbit in south-central Iowa. (M.S.)
- Polderboer, Emmett B. 1940. The cover requirements of the eastern ruffed grouse,

 Bonasa umbellus umbellus L., in northeast Iowa. (M.S.)*
- Provost, Maurice W. 1947. Avian responses to cover-water interspersion in marshes of Clay and Palo Alto counties, Iowa. (PhD)
- Ridley, Bromfield Lewis. 1957. Nesting behavior of the ring-necked pheasant. (PhD)
- Robbins, Otis, Jr. 1950. The productivity of the ring-necked pheasant,

 Phasianus colchicus torquatus (Gmelin), in Washington County,

 Iowa, 1950. (M.S.)*
- Robbins, Russell Lee. 1954. Efficiency of the Ohio game flushing bar under Iowa conditions. (M.S.)
- Roslien, David John. 1963. Blood parasite occurrence in Iowa quail. (M.S.)
- Salinas, James C. 1948. The ecology and management of the white-tailed deer,

 Odocoileus virginianus (Boddaert), in the Ledges State Park region,
 Boone County, Iowa. (M.S.)*

- Sanders, Earl. 1940. History and development of an experimental bob-white management area in southern Iowa. (PhD)
- Schmidt, William. 1962. Waterfowl, quail, pheasant and deer occurrence along the proposed Saylorville impoundment. (M.S.)*
- Schreiner, Keith M. 1950. Productivity of the wood duck (Aix sponsa (L.) aided by artificial nesting boxes. (M.S.)*
- Scott, Thomas G. 1937. Mammals of Iowa. (M.S.)*
- ____. 1942. An investigation of the food coactions of the northern plains red fox. (PhD)
- Sigler, William F. 1941. An analysis of a farmer-sportsman bob-white management cooperative in southeast Iowa. (M.S.)*
- Snead, I. Edwin. 1941. Food habits of the common badger, <u>Taxidea taxus taxus</u> (Schreber) in Iowa. (M.S.)*
- Sooter, Clarence A. 1941. Ecology and management of the American coot
 (Fulica americana americana Gmelin). (PhD)
- Spawn, Gerald B. 1941. Food habits of shorebirds (Charadriiformes) in northwestern Iowa. (PhD)*
- Sprugel, George, Jr. 1947. A field study of spring dispersal and establishment of breeding territories in central Iowa muskrats. (M.S.)
- Stevens, Ward E. 1947. Diving duck production at Barringer's Slough,
 Clay County, Iowa. (M.S.)
- Strohmeyer, David LaVerne. 1963. An evaluation of artificial potholes in marsh management. (M.S.)*
- Tanner, Ward D. 1953. Ecology of the Virginia and King Rails and the Sora in Clay County, Iowa. (PhD)*
- Teer, James Garth. 1951. Controlled waterfowl hunting on a state-owned public shooting ground, Forney Lake, Iowa, 1950. (M.S.)
- Trautman, Carl G. 1942. Winter cover of the Mearns cottontail, Sylvilagus
 floridanus mearnsii (Allen), in central Iowa. (M.S.)*
- Trump, Richard F. 1943. Mobility and range of the southern woodchuck,

 Marmota monax monax (L.), in southeast Iowa. (M.S)*
- Vande Musse, Frederick John. 1964. Cell numbers and hemoglobin content of the blood of cottontails in Iowa. (M.S.)*
- Vohs, Paul A., Jr. 1964. Blood group factors of ring-necked pheasants in Iowa. (PhD)

Voris,	John Calvin.	1956.	Factors	influencing	the summer	roadside	count	
	of the co	ttontai	1 rabbit	(Sylvilagus	floridanus	mearnsi)	in	
	south-cen							(M.S.)

Waller, David Wayne. 1962. Feeding behavior of minks at some Iowa marshes. (M.S.)

Wallace, Herbert S. 1950. Population dynamics of the Mearns cottontail (Sylvilagus floridanus mearnsii Allen). (PhD)

Weston, Henry Griggs, Jr. 1950. Winter behavior and spring dispersal of the ring-necked pheasant (Phasianus colchicus torquatus Gmelin) in Emmet County, Iowa.

(PhD)

- B. THESES FROM THE FISHERIES RESEARCH UNIT (On file at Iowa State University Library, Ames, Iowa)
- Al-Rawi, Tarik Rashad. 1964. Reading of scales of river carpsuckers,

 Carpiodes carpio. (M.S.)*
 - Behmer, David J. 1964. Length-weight relationship and spawning of river carpsucker, Carpiodes carpio in Des Moines River, Iowa. (M.S.)
 - Buchholz, Marvin Meryle. 1957. Life history of the river carpsucker (Carpiodes c. carpio) in the Des Moines River, Boone County, Iowa. (M.S.)
 - _____. 1960. Ecological relationships associated with decreasing growth rate of Clear Lake yellow bass. (PhD)
 - Caillouet, Charles Wax, Jr. 1964. Effects of forced activity on blood lactic acid in channel catfish, Ictalurus punctatus (Rafinesque). (PhD)
 - Carlson, Clarence A. 1960. Abundance of mayfly naiads (<u>Hexagenia spp.</u>) in Pool 19, Upper Mississippi River. (M.S.)
 - . 1963. Experimental manipulation of mayfly naiad and caddisfly larva populations. (PhD)
 - Cleary, Robert. 1948. Life history and management of the yellow pikeperch,

 <u>Stizostedion vitreum vitreum (Mitchill)</u>, Clear Lake, Iowa. (M.S.)
 - Collier, Joe Edward. 1963. Life history studies of yellow bass in North
 Twin Lake, Iowa. (M.S.)
 - Di Costanzo, Charles J. 1954. Growth of bluegill, <u>Lepomis macrochirus</u>, and pumpkinseed, <u>L. gibbosus</u>, of Clear Lake, Iowa. (M.S.)
 - . 1956. Creel census techniques and harvest of fishes in Clear Lake,

 Iowa. (PhD)
 - English, Thomas Saunders. 1951. Growth studies of the carp, Cyrpinus carpio Linnaeus, in Clear Lake, Iowa. (M.S.)
 - Erickson, James George. 1951. Age and growth of the black and white crappies,

 Pomoxis nigromaculatus (Le Sueur) and Pomoxis annularis Rafinesque,
 in Clear Lake, Iowa. (M.S.)
 - Fessler, Floyd R. 1949. A survey of fish populations in small ponds by two methods of analysis. (M.S.)
 - Forney, John Latimer. 1952. Life history of the black bullhead (Ameiurus melas) of Clear Lake, Iowa. (M.S.)

¹Iowa State Conservation Commission, Iowa State University of Science and Technology; U.S.Department of Interior, Bureau of Sport Fisheries and Wildlife; Sport Fishing Institute; Atomic Energy Commission; National Institute of Health; Bureau of Commercial Fisheries; and National Science Foundation; cooperating.

- Fredin, Reynold Allen. 1949. Fish population estimates using the marking and recovery technique. (M.S.)
- Fremling, Calvin R. 1959. Biology and Possible control of economically important Trichoptera and Ephemeroptera of the Upper Mississippi River. (PhD)
- Gaufin, Arden Rupert. 1951. Production of bottom fauna in the Provo River,
 Utah. (PhD)*
- Hansen, Donald Waldemar. 1952. Life history studies of the trout of
 Pathfinder Reservoir, Wyoming. (M.S.)*
- Hennemuth, Richard C. 1953. Growth of the crappies, <u>Pomoxis nigro-maculatus</u> (Le Sueur) and <u>P. annularis</u> Rafinesque, in Lake Ahquabi, Iowa. (M.S.)
- Hervey, John B. 1963. Growth of yellow perch in Clear Lake, Iowa, 1950 to 1962. (M.S.
- Hoopes, David Townsend. 1959. Utilization of mayflies and caddis flies by some Mississippi River fishes. (M.S)*
- . 1962. Ecological distribution of spawning sockeye salmon in three lateral streams, Brooks Lake, Alaska. (PhD) *
- Huntsman, Gene Raymond. 1964. Chromatographic patterns of body mucus of some Catostomid fishes. (M.S.)*
- Johnson, Robert F. 1960. Assimilation of radioactive phosphorus in Hyalella azteca. (M.S.)
- Keeton, Dee. 1963. Growth of fishes in the Des Moines River, Iowa, with particular reference to water levels. (PhD)
- Kudrna, Joel Joseph. 1964. Ecological distribution and relationships of sunfishes in Clear Lake, Iowa. (M.S.)
- Kutkuhn, Joseph H. 1954. Food and feeding habits of some fishes in a dredged lake North Twin Lake, Iowa. (M.S.)
- . 1956. Some ecological relationships of the gizzard shad, Dorosoma cepedianum (Le Sueur), in a dredged prairie lake. (PhD)
- Kuyon, Bismarck Nomu. 1964. Age and growth of channel catfish, Ictalurus punctatus (Rafinesque), in the Des Moines River, Iowa, 1963-1964. (M.S.)*
- Lawrence, John Medlock. 1956. Mouth size of largemouth bass in relationship to size of forage fishes. (PhD)
- LeTendre, Gerard Conrad. 1965. Effect of stress on the blood pH of channel catfish (Ictalurus punctatus). (M.S.)
- Lewis, William. 1947. The use of vertebrae as indicators of the age of bull-heads, Ameiurus spp., in some Iowa waters. (M.S.)
- . 1949. Fish population studies on two Iowa reservoirs. (PhD)

^{*} Not Unit financed.

- Luce, Gordon Raymond, Jr. 1953. Effect of some thiouracils on the growth of a fish, Lebistes reticulatus (Peters). (M.S.)*
- Mahdi, Mahmoud Ahmed. 1963. Mortality of some species of fish to toxaphene at three temperatures. (M.S.)*
- McCann, James Alwyn. 1958. Life history of spottail shiner (Notropis hudsonius), Clear Lake, Iowa. (M.S.)
- . 1960. Estimates of fish populations in Clear Lake, Iowa. (PhD)
- Meyer, Fred Paul. 1957. Helminths of fishes from Trumbull Lake, Clay County, Iowa. (M.S.)
- . 1960. Life history of Marsipometra hastata and the biology of its host, Polyodon spathula. (PhD)*
- Meyer, William Henry. 1961. Life history of three species of redhorse (Moxostoma) in the Des Moines River, Iowa. (M.S.)
- Moorman, Robert Bruce. 1953. Fish populations in some Iowa farm ponds in relation to past history and management. (M.S.)
- Muncy, Robert Jess. 1957. Distribution and movements of channel and flathead catfish in Des Moines River, Boone County, Iowa. (PhD)
- Neal, Richard Allan. 1962. Black and white crappies in Clear Lake, Iowa, 1950-1961. (M.S.)
- Noble, Richard Lee. 1964. Life history and ecology of Western Blacknose Dace, Rhinichthys atratulus meleagris (Agassiz), Boone County, Iowa. (M.S.)
- Osborn, Paul Eugene. 1950. Some effects of thiouracil on the plains stoneroller minnow, Campostoma anomalum pullum (Agassiz). (M.S.)*
- Owen, John Baxter. 1956. Invertebrate fish food from dredged and undredged portions of North Twin Lake. (PhD)
- Paloumpis, Andreas Athanasios. 1956. Effects of floods and droughts on fishes of a small intermittent stream. (PhD)
- Parsons, John Wilson. 1950. The life history of the yellow perch, Perca flavescens (Mitchill), of Clear Lake, Iowa. (M.S.)
- Pearcy, William Gordon. 1952. Some limnological features of Clear Lake, Iowa. (M.S.
- Probst, Robert Theobald. 1952. Metazoan parasites of the northern black bullhead, Ameiurus melas melas (Rafinesque), in Iowa lakes. (M.S.)*
- Rehder, Dudley Dean. 1959. Some aspects of the life history of the carp,
 Cyprinus carpio, in the Des Moines River, Boone County, Iowa. (M.S.)*

- Reynolds, James Blair. 1963. Life history of smallmouth bass, Micropterus dolomieui Lacepede, in the Des Moines River, Boone County, Iowa. (M.S.)
- Ridenhour, Richard Lewis. 1955. The northern Pike, Esox lucius L., population of Clear Lake, Iowa. (M.S.)
- _____. 1958. Ecology of young game fishes of Clear Lake, Iowa. (PhD)
- Ruhr, Clifford Eugene. 1951. Fish population of a mining pit lake, Marion County, Iowa. (M.S.)
- Schmulbach, James C 1959. Factors affecting the harvest of fish in the Des Moines River, Boone County, Iowa. (PhD)
- Sieh, James Gerald. 1949. Movement and depth distribution of some common fishes in Clear Lake, Iowa. (M.S.)
- Sigler, William F 1947. The life history and management of the white bass, <u>Lepibema chrysopa</u> (Rafinesque), in Spirit Lake, Iowa. (PhD)
- Skillman, Robert A 1965. Increased growth of yellow bass in Clear Lake,
 Iowa, 1959-1964. (M.S.)
- Small, Lawrence Frederick. 1959. Estimates of standing crop of plankton in Clear Lake, Iowa. (M.S.)
- . 1961. Some aspects of plankton population dynamics in Clear Lake,

 Iowa. (PhD)
- Sprugel, George, Jr. 1950. A critical scale study of two populations of bluegill and green sunfish. (PhD)*
- Starrett, William Charles. 1948. An ecological study of the minnows of the Des Moines River, Boone County, Iowa (PhD)
- Tate, William Harold. 1949. Growth and food habit studies of smallmouth black bass in some Iowa streams with notes on management. (M.S.)
- Tebo, Leonidas B., Jr. 1952. Bottom fauna of a shallow eutrophic lake,
 Lizard Lake, Pocohontas County, Iowa. (M.S.)
- Vanicek, Charles David. 1963. Life history studies of the sauger,
 Stizostedion canadense (Smith), in Gavins Point Reservoir. (M.S.)
- Vasey, Fred Wayne. 1965. Age and growth of walleye, <u>Stizostedion vitreum</u> (Mitchill), and sauger, <u>Stizostedion canadense</u> (Smith), in Pool 11 of the Mississippi River. (M.S.)*
- Weber, Cornelius I. 1960. The measurement of carbon fixation in Clear Lake, Iowa, using carbon 14. (PhD)*

- Welker, Bill Dean. 1961. Summer food of the yellow bass, Roccus mississippiensis, and black bullhead, Ictalurus melas, Clear Lake, Iowa. (M.S.)
- Whitney, Richard R. 1955. Walleye, <u>Stizostedion vitreum</u> (Mitchill), population of Clear Lake, Iowa. (PhD)
- Youn, Peter Mahlin-Deo. 1962. Comparisons of some carp populations. (M.S.)*

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