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Helmut Karl Buechner Papers, 1939-1975

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Collection Overview

Repository:	Smithsonian Institution Archives, Washington, D.C., osiaref@si.edu
Title:	Helmut Karl Buechner Papers
Identifier:	Record Unit 7279
Date:	1939-1975
Extent:	32.72 cu. ft. (31 record storage boxes) (4 12x17 boxes) (1 oversize folder)
Creator::	Buechner, Helmut K. (Helmut Karl)
Language:	English

Administrative Information

Preferred Citation

Smithsonian Institution Archives, Record Unit 7279, Helmut Karl Buechner Papers

Historical Note

Helmut Karl Buechner (1918-1975) was born in Scotia, New York. He received his B.S. degree from New York State College of Forestry, Syracuse University in 1941, and his M.S. degree from Texas A&M College, College Station in 1943. After completing military service, Buechner continued his education at Texas A&M College. For his Ph.D. thesis, Buechner did research on the range ecology of the pronghorn antelope in the Trans-Pecos region in southwest Texas, 1946-1947. Buechner taught herpetology at Texas A&M College during the Fall of 1947. In 1948, Buechner transferred to Oklahoma A&M College, Stillwater, where he received his Ph.D. degree in 1949. From 1948-1965, Buechner taught zoology and botany at Washington State College (now University), Pullman. In 1965, Buechner joined the Smithsonian Institution as the first director of the Office of Ecology. Buechner was Senior Ecologist for the Office of Environmental Sciences, 1969-1972, and from 1972 to 1975, he was Senior Ecologist for the National Zoological Park (NZIP).

Descriptive Entry

For the most part, these papers document Buechner's primary research interest, the ecology of terrestrial vertebrates, with emphasis on relationships to vegetation and social behavior. Included are Buechner's research on the pronghorn antelope, which contains field notes, journals, photographs, and reports to the Texas Cooperative Wildlife Unit, which sponsored Buechner's research; a study of elk and deer in relation to livestock and range in the Blue Mountains region of southeastern Washington, 1949-1960; and research on the bighorn sheep, 1954-1960, which contains correspondence with personnel at the bighorn sheep animal refuges, photographs, field notes, journal, and a manuscript of Buechner's book, *The Bighorn Sheep in the United States, Its Past, Present, and Future*, 1959.

From 1956 to 1958, Buechner, as a Fulbright Scholar, conducted research in Uganda, on the elephant census and migration, the relationship of elephants to vegetation at Murchison Falls National Park, and reproduction of the Uganda kob. These papers include reports on aerial counts of elephants, photographs, field data and notes.

During Buechner's stay in Uganda, he became interested in the unique territorial and mating behavior of the Uganda kob. Buechner made trips to Uganda's Toro Game Reserve to study the Uganda kob in 1959, 1962-1963, and 1972. Materials documenting these trips include maps, field observation data, transcriptions, audio recordings, photographs, machine readable data and analytical computations of kob movements by Buechner and H. Daniel Roth, 1965-1972.

In addition, these papers contain photographs documenting Buechner's study of the ibex in Switzerland, taken when Buechner was consultant to the Swiss Foundation for Alpine Research during the summer of 1961; a report when Buechner was consultant to the United Nations Food and Agriculture Organization to study the elephants in relation to the Tana River Irrigation Project in Kenya in 1965; and reports when Buechner was consultant to Troy Meadows, in 1966, and to the Great Swamp National Wildlife Refuge, in 1970, (both are located in New Jersey) to study the environmental impact of animals in relation to land within the parks.

Additional material documents Buechner's feasibility studies on tracking free-roaming animals, such as elk, with the Interrogation Recording Location System (IRLS) satellite, 1969-1971, and includes incoming correspondence critical of the project, manuscripts, progress reports, and photographs; and a study of Indian rhinoceros mating behavior at the NZP, 1972, which led to the first successful live birth of this species in the Western Hemisphere, 1974, and includes photographs, tape recordings, and transcripts of observations made by volunteers and National Zoo staff.

Other materials contained in these papers include general correspondence, mostly with university faculty, conservationists, park wardens, and naturalists, pertaining to Buechner's research; reading files, 1968-1972; Buechner's school notes and term papers when he was a student, 1939-1947; lecture material when Buechner taught herpetology at Texas A&M College, 1947; research proposal evaluations Buechner did for the National Science Foundation and the National Geographic Society; handbook written in conjunction with Lee H. Talbot for the International Union for Conservation of Nature and Natural Resources; survey on usefulness of night vision devices; Buechner's proposed research projects at Washington State College (University); materials pertaining to various zoological and conservation organizations; theses by Buechner's former students; articles, abstracts, and book reviews written or co-authored by Buechner; information on projects in Ceylon, Israel, and Korea when Buechner was the head of the Office of Ecology; diplomas and certificates; audio recordings on elk immobilization, 1972, Earth Week Symposium, 1969, and a Panel on the Environment and Development, undated; group photographs of professional scientific organization meetings; Buechner's family photographs; photographs of NZP; and oversize material consisting of blueprints of the new deer area at NZP, 1972, and charts and graphs.

Names and Subject Terms

This collection is indexed in the online catalog of the Smithsonian Institution under the following terms:

Subjects:

Ecology
Mammalogy

Types of Materials:

Black-and-white negatives
Black-and-white photographs

Clippings
Color photographs
Color transparencies
Field notes
Manuscripts
Maps
Sound recordings

Names:

Buechner, Helmut K. (Helmut Karl)
National Zoological Park (U.S.)
New York State College of Forestry
Oklahoma A & M College
Smithsonian Institution. Office of Ecology
Syracuse University
Texas A & M University
Washington State University

Container Listing

Series 1: SCHOOL NOTES, EXAMS, LECTURES, AND TERM PAPERS, 1939-1947. ARRANGED CHRONOLOGICALLY.

Box 1

Entomology, 1939

Forest administration, 1940

Forest pathology, 1940

Invertebrate and vertebrate zoology laboratory notes, 1940

Lake and stream survey, 1940

Plant taxonomy, 1940

"Report on New England Trip," 1940

"Report on Southern Trip," 1940

Survey, plankton, vegetation and fish life, 1940

Botany courses, 1940-1941

Agrostology: "Grasses of the United States," 1941

Histology and Embryology, 1941

"Life Histories," 1941

"Parasitology course," 1941

"Vegetational Study of North and South Facing Slopes near Syracuse, New York," 1941

Zoology, 1946

Fishes, c. 1947

Herpetology: Field Course, 1947

Herpetology: Lab notes, 1947

Herpetology: Lectures and exams, 1947

"Curriculum in range and wildlife management" (undated)

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Series 2: CORRESPONDENCE, 1946-1975. ARRANGED
CHRONOLOGICALLY.

Box 1

A - Z, 1946 (2 folders)

Antelope, 1947

A - Z, January-October, 1947 (4 folders)

A - Z, 1948 (2 folders)

A - Z, 1949

Box 2

A - G, 1949-1952 (7 folders)

H - Z, 1949-1952 (17 folders)

A - Z, 1952-1954 (9 folders)

A - G, 1955-1956 (7 folders)

Box 3

H-Z, 1955-1956 (14 folders)

A, 1956-1958

Ba - Bul, 1956-1958

Buechner, Helmut K., correspondence filed at Washington State College
during African stay, 1956-1958

Butler, Ava, 1956-1958

Buss, Irvan O., 1956-1958

C - F, 1956-1958 (4 folders)

Fulbright correspondence, 1956-1957

G - J, 1956-1958 (4 folders)

Ka - King, 1956-1958

Kinloch, Bruce G., 1956-1958

Kn - Ko, 1956-1958

L - U, 1956-1958 (9 folders)

Uganda Protectorate - General and unidentified correspondence, 1956-1958

Unidentified, 1956-1958

V, 1957

W, 1956-1958

Washington State College (Pullman), 1956-1958

Y, 1957-1958

A, 1958-1962

African Conference, proposed, 1959

B, 1958-1962 (2 folders)

Buss, Irvn O., 1958-1959

C, 1958-1962 (2 folders)

Calvin Company - Motion Picture Services, 1958-1962

D - E, 1958-1962 (2 folders)

Box 4

F - K, 1958-1962 (6 folders)

Kinloch, Bruce G., 1958-1962

Krumholz, Louis A., 1958-1962

L - P, 1958-1962 (7 folders)

Pronghorn Antelopes - International Union for the Conservation of Nature
and Natural Resources, 1959

Q - U, 1958-1962 (6 folders)

Uganda films, correspondence pertaining to, 1959

Uganda, general correspondence, 1959

V, 1958-1962

Box 5

W, 1958-1962

Wright, Philip L., 1958-1960

Y - Z, 1958-1962 (2 folders)

A - C, 1962-1965 (3 folders)

Cowen, William, 1963-1965

D - E, 1962-1965 (2 folders)

F - H, 1962-1965 (3 folders)

I, 1964-1965

J - L, 1962-1965 (3 folders)

Leuthold, Walter, 1962-1965

M, 1962-1965

Memoranda, 1962-1965

N, 1962-1965

O - P, 1962-1965

Q, 1964

R - S, 1962-1965

Smith, Dorothy S., 1962-1963

T - U, 1962-1965 (2 folders)

Uganda trip - dictated correspondence (transcribed from dictabelts),
1962-1963

Box 6

Unidentified correspondence, 1962-1965

V - Z, 1962-1965 (3 folders)

A - H, 1965-1972 (8 folders)

Note: Interrogation, Recording and Location System Satellite, 1966-1971
(see Box 21)

I, 1965-1968

J - K, 1965-1972 (2 folders)

Kob, general correspondence, 1965-1969 (2 folders)

L - P, 1965-1972 (6 folders)

Note: Satellite tracking of elk, criticism of project, 1970-1971 (see Box 20)

Q, 1969

R - T, 1965-1972 (3 folders)

U, 1966

V, 1966, 1971

W, 1965-1972

Y, 1967-1970

Z, 1965-1972

A, 1972-1974

B, 1972-1975

C, 1971-1974

Box 7

D, 1973-1974

E - X, 1972-1974 (19 folders)

Y, 1973-1974

Z, 1972-1974

A - M, 1974-1975

N - P, 1975

Riney, Thane, 1975

Ro - Y, 1975

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Series 3: GENERAL OFFICE FILES, 1950-1975. ARRANGED
ALPHABETICALLY.

Box 7

Ad Hoc Task Force for Legislative Review, 1969-1970

Advisory Board for Forestry, Range, Wildlife and Water Resources,
1958-1960

African - American Institute, 1961

African Wildlife Leadership Foundation, 1961

American Association for the Advancement of Sciences, program book for
meeting, Chicago, December 26-31, 1970

American Institute of Biological Science (AIBS): "Environmental Education:
The Adult Public," 1970

AIBS: meetings, 1969 and 1970 (2 folders)

American Society of Mammalogists: "Report of the Committee on
Conservation of Land Mammals," 1956

American Society of Zoologists (ASZ): Budget information, 1969-1970

ASZ: Division of Ecology, background material and correspondence,
1967-1969

ASZ: Division of Ecology, members, 1969-1972

Box 8

ASZ: Meetings, 1968-1969 (2 folders)

ASZ: Newsletters, 1967-1972

ASZ: Papers presented, 1970-1972

ASZ: Planning letters, 1970

Audubon Naturalist Society, 1967-1970

Biotelemetry - Porpoises, 1970

Book reviews: correspondence, 1966-1969

Ceylonese Elephants - behavior and ecology, 1969-1971 (2 folders)

Chesapeake Bay Center for Field Biology: proposal for a biotelemetry facility, 1969

Committee on Environmental Quality, 1967-1970 (2 folders)

Conference on Land Use Problems in Areas Containing Game, Lake Tanyara, Tanganyika, February 20-23, 1961 (papers presented by Lee M. Talbot)

Ecology conference, Millbrook School, May 1971

Employment Application Information (Helmut K. Buechner's), 1948-1955

Fifth World Forestry Congress, 1960

Food and Agricultural Organization (FAO) of the United Nations, 1964-1965

Ford Foundation, 1959

Fulbright Fellowship, 1956-1960

Fulbright reports, 1956-1958

Fulbright Scholar reports, 1958-1960 (2 folders)

Great Swamp National Wildlife Refuge, New Jersey, 1970

Guggenheim Memorial Foundation, 1962

International Association for Ecology, 1969-1971

Box 9

International Union for Conservation of Nature and Natural Resources (ICUN), 1970-1972

ICUN handbook: "Capturing and Handling Wild Animals with Drugs," by Lee M. Talbot and Helmut K. Buechner, undated

ICUN handbook: "Time - Observation Method of Determining Food Habits of Ungulates," by Helmut K. Buechner, 1962

International Union of Biological Sciences (IUBS), 17th General Assembly, 1970 (2 folders)

International Union of Forestry Research Organizations, 1969

Israel: Bird banding and avifaunal survey, 1970-1972

Israel: Gazelles, 1972 (report)

Kob: San Diego Zoo, 1974

Kob: West Africa, 1973

Korea: "A Cooperative Program for Ecosystem Research in Korea,"
1966-1968 (final report)

Logbook: use of privately owned motor vehicles by government officials
(Buechner's), 1956-1958

Morrison, John A.: PhD dissertation program, 1962-1965

Movies: Calvin Production, Inc., 1963-1964

Movies: Commentary on Kob research film, 1967

Movies: Kob film sale, 1972-1973

Movies: "Territorial Behavior in Uganda Kob," 1959-1961, 1971

Movies: "Wild Animals in Uganda National Parks," 1960-1961

National Geographic Society (NGS), 1972

NGS: Proposals, 1971; 1974-1975 (2 folders)

NGS: Proposal evaluations, 1970-1971

National Institute of Ecology, 1969-1971

National Institute of Health computer system, 1973

National Science Foundation (NSF), 1961-1964

NSF: Proposal evaluation guidelines

NSF: Proposal evaluations, 1967, 1969 (2 folders)

NSF: Proposal evaluations, 1970 (2 folders)

Box 10

NSF: Proposal evaluations, 1970-1971 (4 folders)

NSF: Proposal evaluations, 1972-1974 (3 folders)

NSF: Travel grants, 1961, 1964

Note: National Zoological Park (NZN): Blueprints of deer area, 1965 (see
Oversize)

NZN: Front Royal meetings, 1974

NZP: miscellaneous

Natural Land and Water Reserves System, 1966 (report)

Newspaper articles, 1956-1958

Night Vision Devices: 1964-1972

Night Vision Devices: Starlight Scopes, general correspondence, 1970-1972

Night Vision Devices: Reports from users of Starlight Scopes, 1971

North American Wildlife Conference, 1960

Northwest Scientific Association, 1959-1967

Notes (memo to secretary?), 1960

Notice of research projects, 1974

Office of Ecology annual reports, 1967-1969

Pacific Ridley Turtle, 1970

Personnel file (Helmut K. Buechner's), 1965-1970

Polar Bears: International Meetings on Polar Bears, 1965-1966

Position papers: Legislation on Ecology, 1969-1970

Publication case files, 1965-1970 (2 folders)

Publication case file: American Heritage Series, 1966-1968

Reading File, January-June 1972

Reading File, July-December 1971

Reading File, January-June 1971

Box 11

Reading File, July-December 1970

Reading File, January-June 1970

Reading File, July-December 1969

Reading File, May-June 1969

Reading File, April-May 1968

Research Project Proposal: "Calorie Requirement of Ringneck Pheasants for Survival at Low Temperature," 1952

Research Project Proposal: "Population Studies of Elk in Southeastern Washington State," 1961

Research Project Proposal: "Reproduction in a Natural Population of Chamois in Switzerland," (undated)

Research Proposal: "Utilization of Space in Small Mammal Communities," proposal by Becky Myton, 1970

Royal Veterinary College: East Africa Expedition (interim report), 1962

St. Vincent Island: 1969, 1971

Science (magazine): manuscript evaluations, 1970-1971, 1974

Smithsonian Foreign Currency Program: proposal evaluation, 1971-1972

"Territoriality in the Natural Regulation of Numbers in a Population of Bobwhite Quail," (proposal), 1970

Threatened Ungulates of North America, 1974

Tropical Biology, 1966-1968

Troy Meadows (New Jersey): Environmental impact study, 1966

Troy Meadows, 1971

Uganda National Parks reports, 1961

Union for Research and Experimentation in Higher Education, 1965-1968

United Nations Conference on the Human Environment, June 1972

University of Chicago Press: "Territoriality in an African Antelope," resume for new book, 1969-1972

Upper Volta: Po National Park report, 1975

Vegetational Analyses of the Flora of North America, 1969

Washington State College Research Grant Proposal: "A Determination of Range Carrying Capacity for Livestock and Big Game in the Blue Mountains of Washington," 1955

Washington State College Research Grant Proposal: "Adult Mortality Rate and Pattern in a Population of Chukar Partridge," 1959

Washington State University Project Proposal: "Reproduction in Uganda
Kob," 1960

Washington State University Research Grant: Initiative Project Reports,
1963-1964

The Welcome Foundation, Ltd., 1962

White-eared kob study proposal, 1974

White-tailed deer study proposal, 1971

Wildlife Monitoring Conference, 1973

Wildlife Society: African Wildlife Committee, 1960

Williamson, Francis S. L.: "Interdisciplinary Research on the Rhode River as
a Watershed - Estuarine System of the Chesapeake Bay," proposal to NSF,
undated

Box 12

World Wildlife Fund, 1966-1975

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Series 4: RESEARCH PROJECTS, 1946-1975.

Box 12

Bighorn Sheep Project

Arizona correspondence, 1954-1955

California correspondence, 1954-1955, 1959

Colorado correspondence, 1954-1955

Idaho correspondence, 1955

Montana correspondence, 1954-1956, 1959

Nevada correspondence, 1954-1956, 1959

New Mexico correspondence, 1954-1956, 1959

South Dakota correspondence, 1955-1956, 1959

Texas correspondence, 1959

Utah correspondence, 1954-1956, 1959

Washington and Oregon correspondence, 1956

Wyoming correspondence, 1954-1955

Miscellaneous correspondence, 1954-1956, 1959

Manuscript correspondence during African Trip, 1957

Manuscript correspondence, 1959

Field Notes and Research Material - Arizona, 1955-1956

Field Notes and Research Material - California, 1955-1957

Field Notes and Research Material - Colorado, 1955

Field Notes and Research Material - Idaho, 1955-1956

Field Notes and Research Material - Montana, 1954-1955

Field Notes and Research Material - Nevada, 1955, 1959

Field Notes and Research Material - New Mexico, 1955-1956

Field Notes and Research Material (Research Material only) - Washington State and Oregon

Field Notes and Research Material - Wyoming, 1954-1956

Absaroka Range (Shoshone National Forest): Aerial survey, 1955

Baja, California, 1955

Behavior of bighorn populations

Bighorn Harvest, 1958-1959

Bighorn Sheep in the United States - Past, Present and Future, manuscript, 1959 (2 folders)

Bighorn sheep project: outline

Bighorn sheep reports to the New York Zoological Society, 1954-1955

Bighorn sheep data, 1954

Death Valley National Monument, 1955-1956

Fecal analyses, 1955-1956

Glacier National Park, 1955

Box 13

Hunting data, 1956

Itineraries

Journal, 1955

Plant lists

Photographs, lists of photographs to be used in Buechner's publications; includes some correspondence. See also Boxes 28-31.

Printed materials - Arizona

Printed materials - California, Colorado, Idaho

Printed materials - Montana, New Mexico, Oregon, Texas, Nevada

Printed materials - U.S. Department of Agriculture and Reprints

Printed materials - Wyoming

References

Special report - Field observations on bighorn sheep: Sun River Country, Lewis and Clark National Forest - Augusta, Montana, December 20-29, 1954

Tables of vegetation

Transects, Summer, 1954

United States Forest and Wildlife Service: Bighorn counts and estimates (Desert Game Range, Kofa Game Range, Cabeza Prieta Game Range, and San Andres Game Range)

United States Forest Service Commission on Bighorn: abstracts of reports on Rocky Mountains sheep study, 1940-1941

Yellowstone National Park, 1958

Cougar: survey, 1956

Elephant Census: "Aerial count of elephant in Tsavo National Park," 1957

Elephant Census: "Aerial counts of elephants in Murchison National Park," 1958

Elephant Census: Field notes and data, 1957-1962

Elk Census and Vegetation Study (Note: Diagrams and graphs, see Box 35)

Field notes, 1949-1950

Field Notes, Grant-in-Aid Project No. 22, 1949

Box 14

Field Notes, 1950

Field Notes, 1952 (Mill Creek Watershed)

Field Notes, 1954

Journal, 1948: This journal includes the period in which Buechner lived in Stillwater, Oklahoma, and the move to Washington State, and pertains mostly to a study of quail restocking.

Journal, 1950

Vegetation: Journal and Field notes, 1951

Journal and Field Notes, 1952

Journal and Field Notes, 1953

Elk: Aerial counts, 1956

Elk: Antler measurements, 1956

Elk: Blue Mountains elk census, 1951

Elk: Blue Mountains elk counts, 1959-1960

Elk: Blue Mountains elk statistics (manuscripts), 1950

Elk: Breeding season of elk in Washington, 1954

Elk: Data, 1950-1952

Elk Census: Data, 1960

Elk: Duplicate checkout, 1960

Elk and deer mortality (charts and graphs) - Tables #2, #14

Elk census and kill statistics in the Blue Mountains, 1947-1956

Elk checking station data, 1953

Elk Checking Stations, Data and Summary, 1954

Elk Checking Stations, 1955

Elk Checking Stations, 1959

Elk Checking Stations, 1960

Elk counts, 1956

"Elk Report, January 1, 1959," by Philip J. Urness and Donald E. McKnight

Vegetation: Elk summer range study, 1950

Elk survey, 1949

Elk: Green to dry air conversions, 1951-1952

Vegetation: Literature references, 1952

Vegetation: Mill Creek watershed study, Summer 1952

Note: Photographs: jaw bones of elks of different ages, see Box 28;
vegetation, see Boxes 28-31

Elk: Quarterly reports, 1960

Elk: Reproduction data (Mill Creek hunt questionnaires), 1954

Elk: Results, 1960

Elk: "Special Problems - 1953 Blue Mountains Elk Statistics," by William Strock and Dan Johnson

Elk: Successful hunters, 1950-1953

Vegetation: Tables

Vegetation: Unknowns

Vegetation: Abies Grandis Forest (elevation 5200-6300 feet), 1951

Vegetation: Abies Grandis Forest (elevation 5200-6300 feet), 1952

Vegetation: Abies-Grandis-Salix Forest (elevation 4000-5200 feet), 1951

Vegetation: Abies Lasiocarpa Forest (elevation 5200-6300 feet), 1951

Vegetation: Abies Lasiocarpa Savanna (elevation 5200-6300 feet), 1951

Vegetation: Abies Lasiocarpa Summit Flats (elevation 5200-6300 feet), 1951

Vegetation: Agropyron-Poa Grassland (elevation 4000-5200 feet), 1951

Vegetation: Agropyron-Poa Grassland (elevation 4000-5200 feet), 1952

Vegetation: Alnus-Sorbus (elevation 5200-6300 feet), 1951

Vegetation: Ceanothus Shrub (elevation 5200-6300 feet), 1951

Vegetation: Festuca-Agropyron Grassland (elevation 6200-6300 feet), 1951

Vegetation: Holodiscus Shrub (elevation 4000-5200 feet), 1951

Vegetation: Open Pseudotsuga Taxifolia Forest (elevation 4000-5200 feet), 1951-1952

Vegetation: Physocarpus Shrub (elevation 4000-5200 feet), 1951

Vegetation: Pinus Ponderosa Savanna (elevation 4000-5200 feet), 1951

Vegetation: Prunus Ceanothus Shrub (elevation 5200-630 feet), 1951

Vegetation: Salix (elevation 5200-6300 feet), 1951

Vegetation: Vaccinum Shrub (elevation 5200-6300 feet), 1951

Elk: Wichita Mountains Wildlife Refuge - elk reproduction data, 1951-1953

Ibex

Field notes, 1961

Map: city and vicinity of Interlaken, Switzerland

"A Motion Picture of the Ibex in Switzerland," (Washington State 171 Project Proposal), 1961

Note: Ibex Photographs, see Box 30

Swiss Foundation for Alpine Research, 1961-1962

Box 15

Indian Rhinoceros

Notebook, 1972

Note: Indian Rhinoceros Photographs, see Box 28

Project, 1972-1974 (2 folders)

Transcriptions from tapes, 1972 (2 folders); see Box 26 for tapes (11 reels)

Kob, 1956-1974

Aerial photography, correspondence, 1961

Aerial counts, 1961

Age determination, 1957-1958, 1963-1964

Attachment to territorial grounds. Audio recordings, dictabelts, 1959, 1962-1963; tape, 1972, see Boxes 26-27

Autopsy sheets, 1962-1964

Bookkeeping, 1962-1964

Budget, 1962-1965

Note: Kob Charts and graphs, see Box 35 and Oversize; also photographs, see Boxes 28-31

Collection numbers

Comparison of activities of single-territorial and territorial ground (TG) males, 1963-1964

Computer

Data based on transcribed field notes

Diagrams showing kob movements in TG 3

Diagrams showing kob movements in TG 6

Diagrams (including photographs), TG 3 and TG 6

Distribution of observations of tagged kob in relation to territorial grounds

Distribution of tagged kob during surveys, 1963-1964

Duration of stay on territorial grounds

"Ecological and behavioral aspects of reproduction in the African kob," draft and background statements, 1968

"Ecology of the Uganda kob, *Adenota kob thomasi*, NEUMANN, in the Queen Elizabeth National Park, Uganda," thesis by Kishorchandra Ladhubhai Modha (xerox copy) (2 folders)

Fawns, tagged and captive

Female and young, TG 6 and TG 7, 1962-1963

Field notebook, 1958 (Helmut K. Buechner)

Field notebook, 1959 (Helmut K. Buechner)

Field notebook, October 15, 1962-May 21, 1963 (Helmut K. Buechner)

Field notebook, May 30, 1963-June 22, 1963 (Jimmie Buechner and Hannele Buechner)

Box 16

Field notebook, September 13, 1962-June 25, 1963 (Walter Leuthold)

Field notebook, June 26, 1963-April 4, 1964 (Walter Leuthold)

Field notebook, 1963 (Bristol Foster, Helmut K. Buechner, and Walter Leuthold)

Field notebook: Naturally marked kob, 1962-1964 (Walter Leuthold)

Field notebook: Plant collection, Toro Game Reserve, Uganda, 1962-1964 (Helmut K. Buechner)

Field notebooks, 1972 (Helmut K. Buechner)

Field notes and other notes, 1956-1957

Field notes, journals and reports, 1956-1957

Field notes, journals and reports, 1958

Journal, January 1-March 29, 1958

Field notes (transcribed from dictabelts), June 16-August 18, 1959

Field notes (transcribed from dictabelts), June 16-September 9, 1959

Field notes: TG #3, August 29, 1962-July 5, 1963 (transcribed from dictabelts)

Field notes: TG #6, September 3, 1962-June 26, 1963 (transcribed from dictabelts)

Field notes: TG #7, October 1, 1962-June 11, 1963 (transcribed from dictabelts)

Field notes: Helmut K. Buechner and Robert Schloeth, August 9-23, 1962 (transcribed from dictabelts)

Field notes: Helmut K. Buechner and Walter Leuthold, October 17, 1962-February 8, 1963 (transcribed from dictabelts)

Field notes: general, 1962-1963 (transcribed from dictabelts)

Field notes and observations of tagged kob, rough notes, 1963

Fighting activities on TG #6 (data based on observations by Dieter Burckhardt), 1963

Brian K. Follet correspondence and research, 1965-1967

Frozen tissues, 1963

"Game cropping in Uganda," by John A. Bindernagel, 1968

Graphs, growth curves

Grass burning, 1962-1964

Gross ovary analysis, 1963

Box 17

Gross ovary analysis, 1964 (2 folders)

Herd composition counts, 1962-1963

Herd counts and surveys, 1962-1964

Histories of tagged males - tables, 1962-1964

Immobilization, 1962-1964

Immobilization drugs and equipments, including correspondence, 1960-1969

Known aged concepti, 1957-1963

Kob autopsy, Book I, 1957

Kob autopsy, Book II, 1957-1958

Kob autopsy, Book III, 1962

Kob autopsy, Book IV, 1962-1964

Note: Kob whistling, March 1972, 2 reels tape, see Box 26

Lactation, 1971

"Lek territoriality, altruism, and social organization in the Uganda Kob Antelope," proposal, 1973

"Lek territoriality in social organization and numerical regulation of Uganda Kob antelope," proposal, 1973

"Lek territory occupancy in male Uganda kob antelope," (undated)

Length of stay, 1963

Walter Leuthold: Ph.D. Dissertation, 1965

Walter Leuthold: "Homing experiments with an African antelope," 1965?

Walter Leuthold: Notes, reports, and correspondence, 1964-1972

Maps: correspondence, 1958-1964

Maps: Murchison Falls National Park

Maps: Territorial Grounds, Toro Game Reserve, Uganda - drawings and photographs with and without legends and plottings; see Photographs, Boxes 28-31 and Oversize

Maps: Uganda

John A. Morrison: "Morphology of ovarian corpora in Uganda kob," 1971

John A. Morrison: "Postpartum reproductive activity in female Uganda kob, Adenota kob thomasi (NEUMANN)," thesis, 1965

National Geographic Society Grant, 1972

Box 18

National Geographic Society Grant - Trip, 1972

National Institute of Health: "The role of ovulations in Uganda kob," proposal, 1965-1968

National Science Foundation (NSF): grant #8613, 1959

NSF: grant #GB2150, budget, 1964-1965

NSF: reports to, 1962-1964

Naturally marked (NM) kob: TG #3, #6, and #7, 1962-1964

Nomenclature

Notes on tagged males, 1971-1972

Numbers of kob (tagged, lost, and observations of)

Observations by Dieter Bruckhadt, 1963 (transcribed from dictabelts)

Observations of female kob

Observations of tagged kob (tables)

Occupancy of territorial grounds in relation to time (tables)

Occupancy of territories, 1963-1964

Outline for book, 1965-1969

Ovary data

Parasitic Worms, 1958-1964. Photographs, see Boxes 28-31

"The postpartum-preconception interval in the Uganda kob," by Helmut K. Buechner and John A. Morrison, 1969

"Postpartum reproductive activity in female Uganda kob, *Adenota kob thomasi* (NEUMANN)," by John A. Morrison, 1965

Predator kills, 1962-1964

Record of duration of stay on TG, and TG diagrams, 1963

Record of observations on individual marked kob - Males, TG 3, 1962-1963

Record of observations on individual marked kob - Males and females, NM, 1963

Record of observations on individual marked kob - Males, TG 6 and other TGs (4, 10, 13, 17), 1962-1963

Record of observations on individual marked kob - Males, TG 7, 1962-1963

Record of observations on individual marked kob - Naturally marked (NM) kob, TG 3, 6, 7, 1962-1964

Record of observations on individual marked kob - Tagged females and young, TG 3, 1963

Record of visits on territorial grounds and association of marked males on territorial grounds

References

Reproduction, 1957-1964

Reproduction data, 1957-1958

Box 19

Reproductive and gestation charts, 1957-1958

Research proposals

H. Daniel Roth: tables

San Diego Zoo

Single territorial males, 1963-1964

Single territory - males

SELGEM kob files, 1972

"Supremacy and patterns of lek territory occupancy among the male Uganda kob antelope," by Helmut K. Buechner

"A survivorship curve for the Uganda kob," by John Manarch, 1964

"The system of lek territory occupancy in male Uganda kob antelope," by Helmut K. Buechner and H. Daniel Roth, 1973

"System of territorial occupancy by male Uganda kob antelope"

Tables

Tag records, June - August 1959

Tagged fawns, 1962-1964

Tagged kob, summary, 1963

Tagging system, 1962

"Territorial and reproductive behavior in Uganda kob," by Helmut K. Buechner, 1961 (NSF grant #8613)

Territorial ground observations, 1963 (2 folders)

Tooth: age structure based on tooth sections - survival rate

Tooth replacement

Toro Game Reserve

University of Chicago Press, 1973-1975

Walther, Fritz, sketches (drawn from photographs by Walter Leuthold), 1966

Weight determination, 1963

Weights of ovaries

Kob miscellaneous

Mule Deer

"Analyses of ovaries from deer harvested in northwestern Montana," 1956 (tables and notes, probably used in an article)

Pronghorn Antelope

Antelope food plants and flora of the Trans-Pecos region of Texas, 1946-1947 (index cards)

Box 20

Journal, 1946-1947

Notes, 1947

Note: Pronghorn Antelope Photographs, see Boxes 28-31

Printed materials, 1958-1965 (3 folders)

"Range use and ecology of the pronghorned antelope in the Trans-Pecos region of Texas," by Helmut K. Buechner, 1946-1947 (quarterly reports #1-4) (4 folders)

Reports to Texas Cooperative Wildlife Research Unit, 1946-1947

Wichita Mountains National Wildlife Refuge, 1949

Roan and Sable Antelope Study

Hannele Buechner: Observations, National Zoological Park, 1974

Sally Mackler: Observations, National Zoological Park, 1974

National Geographic Society, proposal, 1974

Christine Schoenwald: Study proposals, 1974

Ranka Sekulic: Correspondence and observation reports, Shimba Hills, Kenya, 1973-1974

Satellite Tracking of Animals

Advanced Applications Flight Experiments (AAFE) - Proposal to NASA, 1971

AMES meeting, February 14, 1973

"Animal tracking from satellites," report from the Smithsonian Astrophysical Observatory (SAO), 1968

"An applied research program in wildlife biotelemetry," University of Wyoming

BIAC Special Report, "Some prospects for using communication satellites in wild animal research," 1966

"Biological problems of bird movements capable of solution using satellite-telemetry," by David G. Nicholls, 1970-71 (proposal)

Biotelemetry Symposium, Pretoria, South Africa, December, 1971 (2 folders)

Correspondence (criticism of project and Monique's death, 1970-1971)

"Development of satellite-related biotelemetry equipment," progress report, July 1971

Diagrams

Earth resources satellites, 1972

East African trip - NASA, 1972

Box 21

Elephants at Tsavo National Park, Kenya (NASA proposal), 1971-1973 (2 folders)

Elk tracking - publicity, 1970

Interrogation, Recording, and Location System (IRLS): General correspondence, 1970-1971

IRLS: General correspondence, 1966-1969

IRLS for study of polar bears, 1970

IRLS tracking of African elephants, 1966-1972

IRLS tracking of elks - first progress report, October 14, 1969

IRLS tracking of elks - second progress report, April 18, 1970

IRLS tracking of marine animals, 1966

Maxwell, James C. - animal tracking of large free roaming animals proposal, 1972

Meetings, 1968-1969

Meetings, 1970-1971 (2 folders)

Meetings, April 23-26, 1973

Memorandum of Understanding, 1971

National Goal of Environmental Enhancement Conference, April 23-27, 1973

Note: Satellite Tracking Photographs, see Boxes 28-31

Printed materials (2 folders)

Box 22

"Proposal for an experiment to track animals from artificial satellites," by Helmut K. Buechner and James C. Maxwell, 1968

"A rationale for animal tracking by satellite," by Helmut K. Buechner, John J. Craighead, Frank C. Craighead, and Charles E. Cote, 1970 (proposal)

Remote sensing, proposal, 1967-1970 (2 folders)

"Report on 1973 Santa Cruz Summer Study on Wildlife Resources Monitoring," Vol. I-II, NASA

"Satellite animal tracking by Doppler Technique," proposal by Dale W. Jenkins and Helmut K. Buechner, 1970

Satellite Animal Tracking Feasibility Studies, Proposal, August 1970

Satellite Animal Tracking Feasibility Studies, Proposal, 1971-1974

"Satellite (IRLS) tracking of elk": annual report, 1970

"Satellite (IRLS) tracking of elk": background statement, 1970

"Satellite (IRLS) tracking of elk": Contract, NASW, 1983

"Satellite (IRLS) tracking of elk": financial statement, 1973

"Satellite (IRLS) tracking of elk": proposal by Helmut K. Buechner, 1969

"Satellite (IRLS) Tracking of Elk in Yellowstone National Park and Caribou in Alaska," proposal by Helmut K. Buechner, 1969

"Satellite Monitoring of Black Bears" as submitted to *Bioscience*, 1971

Satellite Systems Survey

"Satellite Tracking of Caribou," proposal by Helmut K. Buechner, 1970

"Satellite Tracking of Elk," *Science*, 1971

"Satellite Wildlife Research Program," proposal, 1970

"Satellite Wildlife Research Program," Final technical report, 1972

"Status Report for the Annual Report of National Air and Space Council," November 1969

"Status Report on the Development of a Program in the Tracking and Monitoring of Animals by Satellite," June 1971

Status Report - "Satellite Tracking of Elk and Green Sea Turtles," March 1971

Survey of animal tracking, Raytheon consultant work, 1971

Box 23

Symposium on Animal Orientation and Navigation, Wallops Station, Virginia, September 9-13, 1970 (2 folders)

Tracking green turtles by satellite study, 1970-1972

Tracking of elk: semi-annual report, 1970

"The Tropical Wind, Energy Conversion and Reference Level Experiment (TWERLE)," guide for user, 1972

"TWERLE Data User Output Formats," 1974

"Wildlife Movement and Tracking Systems," bibliography

Wildlife Research Program - Phrase I report, 1971

Miscellaneous data and field notes, probably collected during class excursions, 1952-1956, on the following animals: elk, deer, mule deer, white tail deer, pheasants, valley quail, grouse, waterfowls, mountain goats, small mammals, and grizzly bear.

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**Series 5: THESES BY FORMER STUDENTS, COLLECTED BY HELMUT K.
BUECHNER. ARRANGED CHRONOLOGICALLY, 1951-1960.**

Box 23

"Land use and wildlife on farms in southeastern Washington," by Eugene S. Dziedzic, 1951

"Studies of blue grouse, *Dendragapus Obscurus Pallidus Swarth*, in the Methow Valley of Washington," by Byron Arthur Schottelius, 1951

"Ecology of the Marten in the Twin Lakes areas, Chelan County, Washington," by Fletcher Eugene Newby, 1951

"Studies on reproduction in beaver," by Ernest Edmund Provost, 1953

"Reproductive performance of black-tailed deer on the Clemons Tree Farm, Western Washington," by Frank B. Golley, 1954

"Population dynamics of the elk in the Blue Mountains of southeastern Washington," by Philip Joel Urness, 1960

"Reproductive cycle of chukar partridge," by Richard John Mackie, 1960

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Series 6: ABSTRACTS, ARTICLES, AND BOOK REVIEWS, 1942-1974.

This series consists of published abstracts, articles, and book reviews written or co-authored by Helmut K. Buechner, and is arranged chronologically. Some folders contain only correspondence and notes. See "List of Publications" (Box 23) for titles.

Box 23

List of Publications

Abstracts

Emergent evolution as applied to ecology, 1941

Forage Competition between the Pronghorn Antelope and Domestic Sheep in Trans-Pecos Texas, 1949

A Holistic Approach to Ecology, 1949

Feasibility of tracking free-roaming animals in natural environments, 1970

Articles

Relationship of Game and Livestock to Range Vegetation in Kerr County, Texas, 1943

The Range Vegetation of Kerr County, Texas, in Relation to Livestock and White-Tailed Deer, 1944

Birds of Kerr County, Texas, 1946

Livestock-Antelope Relationship in West Texas, 1947

The Antelope Situation, 1948

Bioecology and Biocenology in Wildlife Education, 1950

Range Ecology of the Pronghorn on the Wichita Mountains Wildlife Refuge, 1950

An Evaluation of Restocking with Pen-Reared Bobwhite, 1950

Use of the Helicopter in Wildlife Work, 1950

Censusing Elk by Airplane in the Blue Mountains of Washington, 1950

Hunting the Pronghorn Phantom of the Desert, 1951

Winter-Range Utilization by Elk and Mule Deer in Southeastern Washington, 1952

Game Conservation and the Hunter, 1952

Does are Deer Too, 1952

An Eighty-Per Cent Turnover Period as a Comparative Criterion in Avian Populations, 1953

Some Biotic Changes in the State of Washington, Particularly During the Century 1853-1953, 1953

Teaching and Integrated Course in the Biological Sciences, 1953

The Use of Composition from Harvest Data in Determining Mortalities of Deer and Elk Populations, 1953

Box 24

Increased Natality Resulting from Lowered Population Density Among Elk in Southeastern Washington, 1954

Bighorn Sheep, 1955: Problems in the Management of Bighorn Sheep, 1955

A Prospectus of Bighorn Sheep Populations in the United States, 1955

West Gallatin Elk Study (by Joe Gaab?), 1955

The Well-Managed Elk Herd, 1956

Four Cases of Hybridization between Mule Deer, *Odocoileus hemionus hemionus* (Rafinesque), and White-Tailed Deer, *Odocoileus virginianus ochrourus* (Bailey), in the State of Washington, 1956

The Future of Bighorn Sheep, 1956

Secondary Ovulation of Elks, 1956

Three Additional Records of Antlered Female Deer, 1957

Articles for "Good Land Management Supports Wildlife," 1957

The Fulbright Wildlife Program in Uganda, 1958

Causes of Vegetational Changes on Butiaba Flats and the Adjacent Escarpment, 1957

Bighorn Sheep in the United States, 1960

Recent Advances in Field Immobilization of Large Mammals with Drugs, 1960

Immobilizing Uganda Kob with Succinylcholine Chloride, 1960

Field Immobilization of African Animals, 1960

The Technique of Immobilization of Wild Animals as an Aid to Management and Control, 1960

Territorial Behavior in Uganda Kob, Adenota Kob Thomasi, 1960

Regulation of Numbers of Pronghorn Antelope in Relation to Land Use, 1960

Unilateral Implantation in the Uganda Kob, 1961

Vegetation Change Induced by Fire and Elephant in Murchison Falls National Park, Uganda, 1960

The Use of Succinylcholine Chloride in Immobilizing North American Elk, 1960-1962

Training Programmes for Personnel Concerned with Conservation of African Wild Animals, 1961

Elephant Census: Numbers and Migration Of Elephants in Murchison Falls National Park, Uganda, 1962-1963

The Animal Reproductive Cycle of Chukar Partridge, 1962-1963

Kob: Territoriality as a Behavior Adaption to Environment in Uganda Kob, 1963

Ceremonial Mating Behavior in Uganda Kob by Helmut K. Buechner and Robert Schloeth, 1964 (3 folders)

Reproduction in Uganda Kob with Special Reference to Behavior, 1964

Elephant Survey: Report on the Potential Conflict between Elephants and Agriculture in the Proposed Tana River Irrigation Scheme, 1965

Ecosystem Science as a Point of Synthesis, by S. Dillon Ripley and Helmut K. Buechner, *Daedalus*, Fall 1967

Preliminary Estimation of Energy Flow in Uganda Kob (Adenota Kob Thomasi, Neumann), 1967

International Biological Programme (IBP) Handbook No. 7, 1968

Herbal Control of Vegetation, 1968

The Opening between the Allantoic Vesicle and the Uterine Cavity in the Kob Conceptus, 1969

The Human Ecosystem, 1970

The Avifauna of Northern Latin America: A Symposium Held at the Smithsonian Institution, 13-15 April 1966, 1971

The Ecosystem Level of Organization, 1971

Box 25

Radiotelemetry for Research on Large Land Mammals, 1971

Satellite Tracking: Satellites for Research on Free-Roaming Animals, *BioScience*, 1971

Lek Behavior in the Uganda Kob, *Zoonoos*, 1971

Satellite Tracking: Satellite and Ground Radiotracking of Elk, January 1971, as Submitted BIAC for Wallops Island Symposium

The Lek System in Uganda Kob Antelope, manuscript, 1974

Implications of Social Behavior in the Management of Uganda Kob, 1974

Book Reviews

Conservation of Natural Resources, Guy-Harold Smith, Editor, 1950

Evolution at the Population Level with Special Reference to Game Animals and Practical Game Management, Paavo Voipio, 1950

Practice of Wildlife Conservation, Leonard W. Wing, 1951

American Wildlife and Plants, Alexander C. Martin, Herbert S. Zim, and Arnold L. Nelson, 1951

Uncle Sam in the Pacific Northwest, Charles McKinley, 1952

The Stage Grouse in Wyoming, Robert L. Patterson, 1953

Wildlife Management - Fur Bearers, Waterfowls, and Fish, Rueben Edwin Trippensee, 1953

Our Wildlife Legacy, D. L. Allen, 1954

Imbalance between Man and Environment, H. K. Buechner, 1956

Pelican in the Wilderness, F. Fraser Darling, 1956

Man-Eaters of India, Jim Corbett, 1957

Animal Dispersion in Relation to Social Behavior, V. C. Wynne-Edwards, 1961

Conservation of African Wildlife, H. K. Buechner, 1964

Africa: A Natural History, Leslie Brown, 1965

So Human and Animal, Rene Dubos, 1968

Nature's Paradise, Jen and Des Bartlett, 1967

The Zoology of Tropical Africa, J. L. Cloudsley-Thompson, 1969; *Animal Twilight: Man and Game in Eastern Africa*, J. L. Cloudsley-Thompson, 1969

The World of the Pronghorn, Joe Van Wormer, 1969

The Tule Elk, Dale R. McCullough, 1969

The Serengeti Lion: A Study of Predator-Prey Relations, George B. Schaller, 1972

Mountain Sheep: A Study in Behavior and Evolution, Valerius Geist, 1971

The effect of the Lesser Vegetation of Certain Adirondack Forest Types with Particular Reference to Deer and Grouse, F. B. Barick, 1950

Adaption to Cold in Arctic and Tropical Mammals and Birds in Relation to Body Temperature, Insulation and Basal Metabolic Rate, P. F. Scholander, Raymond Hock, Vladimir Walters, and Lawrence Irving, 1950

Body Insulation of Some Arctic and Tropical Mammals and Birds, P. F. Scholander, Raymond Hock, Vladimir Walters, and Lawrence Irving, 1950

Heat Regulation in Some Arctic and Tropical Mammals and Birds, P. F. Scholander, Raymond Hock, Vladimir Walters, Fred Johnson, and Lawrence Irving, 1950

History and Status of the Ring-Necked Pheasant in Missouri, Donald M. Christisen, 1951

Journal of Wildlife Management, 1951

The Interstitial Cycle in Relation to Autumn and Winter Sexual Behavior in Birds, A. J. Marshall, 1952

Journal of Wildlife Management, 1952

Journal of Wildlife Management, 1953

A Guide to Bird Finding West of the Mississippi, Olin Sewall Pettingill, Jr., 1953

Journal of Animal Management, 1954

Journal of Animal Management, 1956

NSF - News Report, 1965

The Subversive Science, Paul Shepard and Daniel McKinley, Editors, 1969

Man on Earth: Environmental Problems in Perspective, Sterling Brubaker,
1971

A Practical Guide to the Study of the Productivity of Large Herbivores, edited
by Frank B. Golley and H. K. Buechner, 1969

Abstract: *Encyclopedia Britannica*

Elservier's Animal Encyclopedia: *Pronghorn and Bison*, 1969

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Series 7: LECTURES, SEMINARS, AND SYMPOSIA. ARRANGED
CHRONOLOGICALLY, 1949-1974.

Box 25

Symposium on the Influence of the Severe Winter of 1948-1949 on Wildlife,
March 2, 1949

Symposium on Population Fluctuations, 1964

Symposium on Reproduction in Mammals, 1964

AIBS/SI Workshop, May 27, 1966

HEW - National Institute of Health Seminars, August 20, 1969

St. Alban's School, October 20, 1969

Environmental Management Seminar, Harpers Ferry, December 18, 1969

National Science Foundation Seminar: Workshop Conference on
Environmental Education, April 6-7, 1970

Earth Week - Smithsonian Institution, April 23-30, 1970

Planned Parenthood, Southeast Region Council Meeting, Savannah Georgia,
May 8, 1970

Game Cropping, Catholic University, July 31, 1970

AIBS Symposium on Animal Orientation and Navigation, Wallops Island,
Virginia, September 9-13, 1970

The Society for Environmental Development - October 14, 1970

Human Ecology Seminar, George Washington University, November 19,
1970

AMES Research Center: Investigations in Terrestrial Biology Using
Aerospace Vehicles, January 21-22, 1971

National Association for Research in Science Teaching, Silver Spring,
Maryland, March 23-25, 1971

Ice Age Survivors - The role of man in the environment, UCLA, June 5, 1971

Plains Animals in Africa, UCLA, June 5, 1971

"The Challenge for Survival," Audubon Naturalist Society, Washington, D. C.,
September 22, 1971

International Telemetry Conference, Washington, D. C., September 27-29,
1971

Social Organization and Environment, Franklin and Marshall College,
Lancaster, Pennsylvania, October 5-6, 1971

"Territoriality and Ceremonial Mating Behavior of the Uganda Kob," University
of Maryland, October 12, 1971

Conference on "The Behavior of Ungulates and Its Relation to Management,"
University of Calgary, Alberta, November 2-6, 1971

"The Uganda Kob: Territorial and Ceremonial Mating Behavior," AAAS
meeting, Philadelphia, Pennsylvania, December 28, 1971

Audubon Naturalist Society, February 2, 1972

National Institute of Health, Poolesville, Maryland, May, 1972

Juniata College, Huntington, Pennsylvania, May 4, 1972

Wildlife Diseases Conference, University of Connecticut, Storrs, Connecticut,
August 24, 1973

Mount Vernon College, Virginia, September 18, 1973

Audubon Naturalist Society, January 21, 1974

Endangered Species Symposium, 1974

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Series 8: AUDIO RECORDINGS, 1959-1972.

Box 26

Elk Immobilization, February 19, 1970, 1 reel

Panel on Environmental and Development, Washington Chapter of S. I. D.,
Lester Brown, Chairman, (no date), 1 reel

Earth Week Symposium, April 1969, 4 reels

Kob Whistling, Uganda, March 1972, 2 reels

Indian Rhinoceros - observations of mating behavior of Rajikumari and
Tarun at the National Zoological Park, July-October 1972 (see Box 15 for
transcripts), 11 reels

Box 27

Dictabelts (See Box 16 for transcripts)

Field Notes, April 14, 1959

Field Notes, June 13, 1959

Correspondence, June 15, 1959

Semliki Game Reserve, June 16-20, 1959

Correspondence, June 22, 1959 (2 envelopes)

Kenya - Giraffe and Kob, June 23-26, 1959

Semliki Game Reserve, July 8-13, 1959

Field Notes, July 14-17, 1959

Semliki Game Reserve, July 18-20, 1959

Field Notes, July 24-26, 1959

Field Notes, Received July 31, 1959

Correspondence, July 30, 1959

Field Notes, Received August 5, 1959

Field Notes, August 1-3, 1959

Elephant Aerial Count, August 6-9, 1959

Field Notes and Correspondence, August 14-18, 1959

Field Notes, August 20-23, 1959

Field Notes, August 23-27, 1959

Field Notes, Received September 8, 1959

Field Notes, September 7-9, 1959

Field Notes, Received September 12, 1959

Unidentified Field Notes, 1959

Correspondence, 1959

Story for *Reader's Digest*, 1959

Field Notes, October 12-16, 1962

Field Notes - covering locations of old and new TG; also immobilization and transplanting male kob; October 23, 1962

Field Notes, Fred Leuthold, October 30, 1962

Field Notes, J. Morrison, November 10, 1962

Field Notes, November 24, 1962 (2 envelopes)

Field Notes, November 28, 1962

Field Notes, December 28, 1962

Field Notes, December 1962-January, 1963 (2 envelopes)

Correspondence?, January 13, 1963

Field Notes, Transcribed February 18, 1963

Field Notes, February 28, 1963

Field Notes, May 8, 1963

Field Notes, May 15, 1963

Field Notes, Transcribed May 20, 1963

Field Notes, TG 7, May 25, 1963 (2 envelopes)

Field Notes, May 25, 1963

Field Notes, TG 6, May 26-27 and pm of June 1, 1963

Field Notes, May 31, 1963

Field Notes, June 1-2, 1963

Field Notes, TG 3, June 20, 1963

Field Notes, June 24 and July 5, 1963

Unidentified Field Notes, 1963?

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Series 9: PHOTOGRAPHS. ARRANGED BY SUBJECT.

Box 28

Prints

African Animals - Immobilizing

Bighorn Sheep (3 folders)

Bighorn Sheep: Photographs used in book

Caribou: 16 mm film strips

Elk: Yellowstone National Park Winter Elk Range

Elk jaws: 6 months - 21 years

Elephant study, Kenya, 1965

Kob, taken by Walter Leuthold

Kob: Diagrams and graphs

Kob: Color photographs

Kob: Photographs of fetuses, 1965

Kob: Sketches by Fritz Walther

Kob: Black and white photographs

Kob

Meetings

Pronghorn

Pronghorn: Photographs used for PhD. Thesis

Satellite Tracking of Elk (includes slides)

Vegetation: Blue Mountains, Washington

Washington State's Pomeroy Ranger District (SE Washington), map

Negatives

Bighorn Sheep

Elephant Study, Kenya, 1965

Pronghorn

Elk

Kob

Slides

Indian Rhinoceros, 1972-1974

Kob, Toro Game Reserve, Uganda, 1972

NZP Animals and Miscellaneous, 1974; 1972 Flood at NZP

Rampart dam (location and date unknown), color transparencies

Satellite tracking

Ungulates (NZP): used for AAZPA meeting, May 21, 1974

Box 29

Pronghorn Antelope; Oklahoma National Wildlife Refuge; Washington State Blue Mountains Vegetation, 1947-1954

[Image\(s\): Frank Harbert and Fred Zwickel at Mill Creek Watershed, by Helmut K. Buechner, March 1949. \[Image no. SIA2014-00006\]](#)

[Image\(s\): "Mountain Boy" Buss, satisfied after killing yearling and elk at Hardy Ridge \[Washington\], by Helmut K. Buechner, November 1949. \[Image no. SIA2014-00007\]](#)

[Image\(s\): \[View of car by campsite\] during deer season at Hardy Ridge \[Washington\], by Helmut K. Buechner, October 1949. \[Image no. SIA2014-00008\]](#)

[Image\(s\): Sunset at Weikswood, by Helmut K. Buechner, September 1952. \[Image no. SIA2014-00009\]](#)

[Image\(s\): Fertility erosion on ridge tops, 15 miles southwest of Pullman, Washington, by Helmut K. Buechner, March 1953. \[Image no. SIA2014-00010\]](#)

[Image\(s\): 10 miles south of Pullman, Washington, on US 195 \(?\), by Helmut K. Buechner, February 1953. \[Image no. SIA2014-00011\]](#)

[Image\(s\): Example of nearly natural vegetation, by Helmut K. Buechner, June 5, 1953. \[Image no. SIA2014-00012\]](#)

Bighorn Sheep: Arizona, California, Nevada, 1955

Bighorn Sheep: California, 1955

Bighorn Sheep: Idaho, Montana, Utah, 1954

Bighorn Sheep: Colorado, Wyoming, 1954

[Image\(s\): Herd seen in vicinity of Jackson Hole, Wyoming, by Helmut K. Buechner, 1954. \[Image no. SIA2014-00013\]](#)

Bighorn Sheep: Rocky Mountains

Box 30

Bighorn Sheep: Yellowstone National Park, Wyoming, 1954

Bighorn Sheep (miscellaneous); Hybrid Deer; Elk; Kob (negatives)

Prints

Bighorn Sheep

Cougar

Elk

Ibex, 1961 (2 folders)

Vegetation, 1942

Pronghorn, 1947 (3 folders)

[Image\(s\): Doe with fawns about 1 hour old at Up & Down Ranch, 10 miles northwest of Ft. Davis, Texas, May 28, 1947. By Helmut Cuechner. \[Image nos. SIA2014-00014 to SIA2014-00023\]](#)

Satellite Tracking, 1970

Unidentified ungulates

Utah Cooperative Wildlife Research Unit, 1947

Vegetation, 1950s (2 folders)

Wichita Mountains Wildlife Refuge, 1949

Helmut K. Buechner - Portraits

Buechner Family, 1944

Cumming Creek, Blue Mountains, Washington, 1950

Negatives

Bighorn Sheep Project (6 folders)

Box 31

Ceylonese Elephant, 1967

Cougar

Deer

Hybrid Deer

Ibex, 1961

Kob (13 folders)

Pronghorn (19 folders)

Elk Census and Vegetation Study (9 folders)

Vegetation

Satellite Tracking, 1970

Avian Population Turnover Concepts

Potholes Reservoir Area, Washington, 1953

Cummings Creek, Blue Mountains, Washington, 1950

Buechner Family, 1947, 1953

Unidentified People

Denis Zaphino, 1959

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Series 10: NOTEPADS AND DIARY, 1965, 1970-1971.

These volumes contain entries about Buechner's day to day activities; travel; names and addresses of personal acquaintances; notes pertaining to Buechner's projects; and miscellaneous notes of personal interest.

Box 31

Diary, 1965

Notepad, 1965

Notepads, 1970

Notepads, 1970-1971

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Series 11: OBSERVATION AND MACHINE READABLE DATA ON THE KOB.

Box 32

IBM Data Sheets - data on the Uganda kob collected between 1962 and 1964. Data is arranged into "Card" 1-4. "Card" 1-3 consists of the physical measurements. "Card" 4 consists of data on the locations of the Uganda kob within the territorial grounds. For explanation of numbers, see chart in Computer, Box 15.

Card 1-3 (Collected Kob), 1962-1964

Card 4 (Tagged males TG 3), 1962-1964

Card 4 (Tagged males TG 6 and animals of ther TGs), 1962-1964

Card 4 (Tagged males TG 7), 1962-1964

Card 4 (NM Kob TGs 3, 6, 7), 1962-1964

Card 4 (Tagged females and young TGs 3, 6, 7), 1962-1964

Additional Kob Data, 1972

Box 33

Printouts - data on the Uganda kob collected during 1962 and 1964, arranged same as above. (4 folders)

Box 34

Printouts - analytical and statistical computations by H. Daniel Roth, mostly unidentified and unarranged, 1972. Also, entry of manuscripts written by Helmut K. Buechner and other computations, 1965.

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Series 12: DIPLOMAS AND CERTIFICATES, 1938-1966.

Box 35

Alpha Phi Omega, December 11, 1938

Alpha Xi Sigma, April 17, 1940

Phi Kappa Phi, December 5, 1940

Syracuse University, Bachelor of Science degree, June 2, 1941, see
Oversize

Texas A & M College, Master of Science degree, January 22, 1943, see
Oversize

Phi Kappa Phi, July 29, 1949

Oklahoma A & M College, Ph.D. degree, August 2, 1949

The Wildlife Society, March 5, 1961

American Association for the Advancement of Science, March 1, 1963

The Zoological Society of Korea, September 17, 1966

Encyclopedia Britannica (undated)

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Series 13: CHARTS, DIAGRAMS, BLUEPRINTS, AND MAPPINGS.

Box 35

Elk Census and Vegetation Study

Kob: Distances from TGs 3, 6, and 7

Kob: Herding Areas

Oversize

Blueprints (2) of deer area, NZP, 1972

M. S. degree - Texas A & M College, 1943

Maps of Uganda kob territorial grounds, with legends (unidentified) a-f

Charts - kob: "Days on territory per visit vs days on and off territory per visit;"
"Monitoring of TGs," January 1963-March 1963

Photograph: 17th North American Wildlife Conference

B.S. degree: Syracuse University, 1941

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