

15/24/31
Liberal Arts and Sciences
Zoology
Arthur W. Ghent Papers, 1949 - 2001

EVENTS IN GHENT'S LIFE

- Born: 1927, Toronto, Ontario, Canada. Entered USA: Sept. 1, 1960, Detroit.
- 1946 Entered University of Toronto.
- 1950 B. Sc. F. , with Honours, University of Toronto.
- 1950 Appointed Agricultural Research Officer, Forest Insect Laboratory, Sault Ste. Marie, Ontario, Canada; appointment held on roughly an alternate-year basis, with intervening years on educational leave, till 1959.
- 1950 Entered the Graduate School, Dept. of Zoology, University of Toronto.
- 1950 Awarded Robert W. Lyons Fellowship, University of Toronto.
- 1952 Awarded Ontario Research Council Scholarship, University of Toronto.
- 1952 Demonstrator in Zoology, Dept. of Zoology, University of Toronto.
- 1954 M. A. , awarded upon completion of thesis: "A study of the Group-Feeding Behavior of Larvae of the Jack-Pine Sawfly, Neodiprion banksianae Roh. " Supervisor: Dr. C. E. Atwood.
- 1955 Entered the Graduate School, Dept. of Zoology, University of Chicago.
- 1955 Awarded University of Chicago Fellowship.
- 1956 Awarded University of Chicago Fellowship.
- 1956 Elected Sigma Xi, Chicago Chapter.
- 1959 Resigned, Canadian Government Service, to complete Ph. D. studies.
- 1960 Ph. D. , awarded upon completion of thesis: "Studies of the behavior of Tribolium flour beetles. " Supervisor: Dr. Thomas Park.
- 1960 Appointed Assistant Professor of Quantitative Zoology, University of Oklahoma, Norman, Oklahoma.
- 1964 Appointed Assistant Professor, School of Life Sciences, University of Illinois, Urbana, Illinois.
- 1965 Appointed Associate Professor, School of Life Sciences, University of Illinois, Urbana, Illinois.
- 1970 Appointed Professor, School of Life Sciences, University of Illinois, Urbana, Illinois.

- 1973 Joint appointment as Professor, School of Basic Medical Sciences, University of Illinois, Urbana, Illinois.
- 1974 Participant, Visiting Lecture Series on Mathematical Biology, Colby College, Maine.
- 1975 Elected, American Society of Naturalists.
- 1983 Appointed, Associate Editor for Statistical Biology, *American Midland Naturalist*.
- 1984 Invited lecture, "Mortality and Size-Class Distribution Patterns in Conifer Plantations", Weyerhaeuser Co. , Tacoma, WA, Sept. 20-24.
- 1985 Invited lecture, "Competition Effects in Red Pine and White Spruce Plantations", Ontario Ministry of the Environment, Maple, Ontario, August 17.

RESEARCH CONTRIBUTIONS

1952. A technique for determining the year of the outsidering of dead trees. *Forestry Chronicle* 28(4):85-93.
1954. The treatment of decayed wood from dead trembling aspen trees for growth-ring analysis. *Forestry Chronicle* 30(3):280-283.
1955. A guide for the re-alignment of off-center increment borings. *Forestry Chronicle* 31(4):353-355.
1955. Oviposition behaviour of the jack-pine sawfly, Neodiprion americanus banksianae Roh. , as indicated by an analysis of egg clusters. *Canadian Entomologist* 87(6):229-238.
1956. Linear increment in width of the head capsule of two species of sawflies. *Canadian Entomologist* 88(1):17-23.
- and D. A. Fraser, J. B. Thomas. 1957. Studies of regeneration in forest stands devastated by the spruce budworm. Part I. Evidence of trends in forest succession during the first decade following budworm devastation. *Forest Science* 3(2):184-208.
1958. Studies of Regeneration in Forest Stands Devastated by the Spruce Budworm. Part 2. Age, Height Growth and Related Studies of Balsam Fir Seedlings. *Forest Science* 4(2):135-146.
1958. Studies of the feeding orientation of the jack pine sawfly, Neodiprion pratti banksianae Roh. *Canadian Journal of Zoology* 36:175-183.
1958. Mortality of overstory trembling aspen in relation to outbreaks of the forest tent caterpillar and the spruce budworm. *Ecology* 39(2):222-232.
1959. Row-type oviposition in Neodiprion sawflies as exemplified by the european pine sawfly, N. sertifer (Geoff.). *Canadian Journal of Zoology* 37:267-281.
1960. A study of the group-feeding behaviour of larvae of the jack pine sawfly, Neodiprion pratti banksianae Roh. *Behaviour* 16(1-2):110-148.
- and J. B. Thomas. 1960. Regularity in distribution of supernumerary needles on the terminal growth of young jack pine trees. *Forest Science* 6(4):331-333.
1962. On the anatomy of explanation. Part 1. The roles of inductive and deductive reason. *Bios* 33(2):74-81.
1962. On the anatomy of explanation. Part 2. Dependence on process, pattern, and time. *Bios* 33(3):133-144.
1963. On the anatomy of explanation. Part 3. Sequential and hierarchical description. *Bios* 34(1):11-23.
1963. Studies of behaviour of the Tribolium flour beetles. Part 1. Contrasting responses of T. castaneum and T. confusum to fresh and conditioned flours. *Ecology* 44(2):269-283.
1963. Kendall's "Tau" coefficient as an index of similarity in comparisons of plant or animal communities. *Canadian Entomologist* 95(6):568-575.

1963. A deficit of heresy. *The Biologist* 46(1-2):1-14.
1963. Studies of regeneration in forest stands devastated by the spruce budworm. Part 3. Problems of sampling precision and seedling distribution. *Forest Science* 9(3):295-310.
- and Joan L. Larson. 1964. Regularities in the size and orientation of juniper fragments attached to the cases of the bagworm, Thyridopteryx ephemeraeformis (Haw). *Canadian Entomologist* 96(8):1097-1106.
- and Houser, Alfred. 1964. An experimental gill net based on the principle of the Latin square. *Transactions of the American Fisheries Society* 93(3):233-242.
1964. On the goals of science. *The Biologist* 47(1-2):1-16.
- and B. Grinstead. 1965. A new method of assessing contagion, applied to a distribution of redear sunfish. *Transactions of the American Fisheries Society* 94(2):135-142.
1965. Number triangles yielding the numerators for exact solutions of the Wilcoxon rank sum test. *Canadian Entomologist* 97(7):701-715.
1965. Science, existentialism, and the search for a naturalistic ethic. *Bios* 36(3):103-125.
1966. The logic of experimental design in the biological sciences. *Bioscience* 16(1):17-22.
1966. Studies of behavior of the Tribolium flour beetles. II. Distributions in depth in fractionable shell vials. *Ecology* 47(3):355-367.
1966. A model of crossing-over based on alternately-oriented dipoles. *J. Theoret. Biol.* 11:87-111.
1966. Binomial corner-association assessment of contagion: A response to certain criticisms of the method. *Trans. Amer. Fish. Soc.* 95(4):437-441.
1967. On teaching "Population biology"--whatever that may be. *The Biologist* 49(1-2):1-11.
1967. Selected problems in biometry. I. Some applications of elementary set theory in biology. *Bios* 38:7-21.
1967. Selected problems in biometry. II. The structure of the binomial distribution. *Bios* 39:115-134.
1967. Selected problems in biometry. III. Chi square as an index of disagreement. *Bios* 38(4):161-179.
- and B. P. Hanna. 1968. Application of the "Broken Stick" formula to the prediction of random time intervals. *Amer. Mid. Nat.* 79(2):273-288.
1969. Selected problems in biometry. V. Applying the binomial in a research context. *Bios* 40(4):158-176.
1969. Studies of regeneration in forest stands devastated by the spruce budworm. IV. Problems of stocked-quadrat sampling. *Forest Science* 15(4):417-429.
1970. Principles of experimental design. In:*The study of botany* (P. Adams, J. J. W. Baker, G.

- E. Allen). Addison-Wesley Pub. Co. , Calif. ; Chap. 4, pages 41-50.
- and B. P. Hanna. 1971. An interval-distribution generator for sequences of elements of two kinds, suited to behavioral and ecological studies. *Amer. Mid. Nat.* 85(1):188-195.
1971. Selected problems in biometry. VI. The Poisson distribution. *Bios* 42(2):78-92.
1971. Theory and applications of exponential formulae in common problems of population growth. *The Biologist* 53(1):1-21.
1971. Theory and applications of several tests of sequential nonrandomness. *The Biologist* 53(4):169-214.
1972. A graphic computation procedure for Kendall's tau suited to extensive species-density comparison. *Amer. Mid. Nat.* 87(2):459-471.
1972. A method for exact testing of 2 x 2, 2 x 3, 3 x 3, and other contingency tables, employing binomial coefficients. *Amer. Mid. Nat.* 88(1):15-27.
1972. Selected problems in biometry. VII. Analyses of contingency tables by chi square. *Bios* 43(3):105-128.
1972. Calculation of equilibrium growth rates in a life-table format. *The Biologist* 54(4):137-139.
1973. Selected problems in biometry. VIII. Some applications of contingency tables in research. *Bios* 44(2):63-85.
1973. Gravity and the distribution of leaf shape in the trees of Sassafras albidum. *New Phytologist* 72:1141-1158.
1973. Theory and application of some nonparametric statistics. I. Exact solutions (extended by number triangles) to the Wilcoxon two-sample and paired-sample tests. *The Biologist* 55(4):149-177.
1974. Theory and application of some nonparametric statistics. II. Normal approximations to the Wilcoxon two-sample and paired-sample tests, and two related tests. *The Biologist* 56(1):1-31.
1974. Theory and application of some nonparametric statistics. III. Spearman's rho and the "rankit" substitution as measures of rank-order correlation. *The Biologist* 56(3):130-151.
1976. Theory and application of some nonparametric statistics. IV. Kendall's tau as a measure of rank-order correlation. *The Biologist* 58(1):10-29.
1976. Theory and application of some nonparametric statistics. V. Tau, gamma, and W as measures of rank-order correlation in contingency tables and multiple rankings. *The Biologist* 58(2):41-60.
1976. Lagged differences as a means of strengthening the Moore-Wallis test for a predominant upward or downward trend. *American Midland Naturalist* 96(1):144-159.
- and R. Singer and L. Johnson-Singer. 1978. Depth distributions determined with SCUBA, and associated studies of the freshwater unionid clams Elliptio complanata and Anodonta

- grandis in Lake Bernard, Ontario. *Canadian Journal of Zoology* 56(8):1654-1663.
1978. Computational shortcuts for the hypergeometric distribution: the appropriate generator where territoriality is suspected. *The Biologist* 60(4):113-122.
1979. Some considerations governing the selection of appropriate statistical procedures. I. Questions of numerical scale and research interest. *The Biologist* 61(2):59-73.
1981. Some considerations governing the selection of appropriate statistical procedures. II. Research involving nominal-scale data. *The Biologist* 63(2):48-68.
1981. Some consideration governing the selection of appropriate statistical procedures. III. Research involving ordinal-scale data. *The Biologist* 63:109-137.
1983. Tau as an index of similarity in community comparisons: an approach permitting the hypothesis of unequal species abundance. *Canadian Journal of Zoology* 61:687-690.
1984. Gamma as a paired statistic for replicate ordered samples in biology. *American Midland Naturalist* 112:192-195.
1984. Examination of five tau variants suited to ordered contingency tables, from the viewpoint of biological research. *American Midland Naturalist* 112:332-348.
- and Waldbauer, G. P. 1985. Flower associations and mating behavior or its absence at blossoms by *Spilomyia* spp. (Diptera, Syrphidae). *Great Lakes Entomologist* 17(1):13-16
- and Lorenzana, R. , V. R. Beasley, W. B. Buck, G. R. Lundeen, and R. H. Poppenga. 1985. Experimental T-2 Toxicosis in Swine. I. Changes in Cardiac Output, Aortic Mean Pressure, Catecholamines, 6-Keto-PGF Thromboxane B, and Acid-Base Parameters. *Fundamental and Applied Toxicology* 5:879-892.
- and Lorenzana, R. , V. R. Beasley, W. B. Buck. 1985. Experimental T-2 Toxicosis in Swine. II. Effect of Intravascular T-2 Toxin on Serum Enzymes and Biochemistry, Blood Coagulation, and Hematology. *Fundamental and Applied Toxicology* 5:893-901.
- and S. E. Franson. 1986. Changes in mortality and size-class spatial distribution patterns in pre-closure and post-closure conifer plantations. *Forest Science* 32(3):559-75.
- and Kettler, M. K. and G. S. Whitt. 1986. Comparison of phylogenies based on structural and gene-expressional differences of enzymes in a family of teleost fishes (Salmoniformes:Umbridae). *Molecular Biology and Evolution* 3(6):485-498.
1987. Tau as an index of similarity in community comparisons: the opposite null orientations of contingency and correlation tests. *American Midland Naturalist* 117(1):221-2.
- and Stencel, J. 1988. Analyses of annual population counts of white and gray squirrels (Sciurus carolinensis) in Olney, IL. , 1976-1985. *American Midland Naturalist* 118(2):251-7.
- and Waldbauer, G. P. , and J. G. Sternberg. 1988. Lakes Michigan and Huron limit gene flow between the subspecies of the butterfly Limenitis arthemis. *Can. J. Zool.* , 66:1790-1795.
- and Godshalk, C. P. , and R. R. Badertscher II, M. K. Rippy. 1988. Quantitative ultrasonic assessment of liver size in the dog. *Veterinary Radiology* 29(4):162-167.

- and N. Zucker. 1990. A readily interpreted index of dispersion based on nearest-neighbor analyses. *American Midland Naturalist* 124:184-187.
1991. Insights into diversity and niche breadth analyses from exact small-sample tests of the equal abundance hypothesis. *American Midland Naturalist* 126(2):213-255.
- and Friedman, S. , G. P. Waldbauer, J. E. Eertmoed, Mohammed Maeem. 1991. Blood trehalose levels have a role in the control of dietary self-selection by Heliothis zea larvae. *J. Insect Physiol* 37:919-928.
- and Echeverri, A. C. , H. W. Gonyou. 1992. Preparturient behavior of confined ewes: time budgets, frequencies, spatial distribution and sequential analysis. *Applied Animal Behaviour Science* 34:329-344.
- and R. E. Warner and P. C. Mankin. 1992. Accurate counts for Moran's joins tests in ecological studies. *American Midland Naturalist* 128:366-376.
- and J. H. Zar. 1992. Runs of two kinds of elements on a circle: a redevelopment, with corrections from the perspective of biological research. *American Midland Naturalist* 128:377-396.
1993. An exact test and normal approximation for centrifugal and centripetal patterns in line and belt transects in ecological studies. *American Midland Naturalist* 130:338-355.
- and Moore, A. S. , H. W. Gonyou. 1993. Integration of newly introduced and resident sows following grouping. *Applied Animal Behaviour Science* 38:257-267.
1995. A possible mode of induction of pinnateness in Honey Locust as implied by consistent gradients of 1-, mixed-, and 2-pinnate leaves. *American Midland Naturalist* 133:213-228.
- and S. G. Mochel. 1996. Testing tree-ring crossdatings and other correlated time series by means of first- and second-difference turn tests. *American Midland Naturalist* 135:317-333.
1997. A variant of the hypergeometric distribution for large or territorial organisms. *American Midland Naturalist* 137:195-205.

BOX/FOLDER LIST

Box 1:

Personal and Biographical Information:

Vitae

Arthur Ghent's Bibliography and Literature Citations, 1980-1995

Power of Attorney, Arthur Ghent for Mildred Ghent, 1975

Personal Literature - Literature of Personal interest to Ghent

Plays and Music

Poetry by Ghent

Theatre involving Ghent

Articles

Letters to Newspapers

Newsclippings

Retirement Letters

Personal and Family 35mm Slides (1 folder, 3 boxes)

Florence N. David Obituary, 1993

Correspondence, 1950-75

Statistics Class with Dr. Butler, Ghent's notes

Course Work at the University of Toronto and University of Chicago, 1949-55

Articles and Reprints by Ghent, I, 1960-1976

II, 1978-2001

Collected Individual Reprints by Ghent:

"A Technique for Determining the Year of the Outside Ring of Dead Trees," Forest Chronicle, 28 (4): 85-93, 1952

"The Treatment of Decayed Wood from Dead Trembling Aspen Trees for Growth-ring Analysis," Forest Chronicle, 30 (3): 280-283, 1954

"A Guide for the Re-alignment of Off-center Increment Borings," Forest Chronicle, 31(4): 353-355, 1955

"Oviposition Behavior of the Jack-Pine Sawfly - Egg Cluster Analysis," The Canadian Entomologist, 87(6), June 1955

"Linear Increment in Width of the Head Capsule of Two Species of Sawflies," Canadian Entomologist, 88(1): 17-23, 1956

"Studies of Regeneration in Forest Stands Devastated by the Spruce Budworm, Part I" (reprint and photocopy master, with D. A. Fraser and J. B Thomas), Forest Science, 3(2): 184-208, 1957

"Part II", Forest Science, 4(2): 135-146, June 1958

"Part III", Forest Science, 9(3):295-310, September 1963

"Mortality of Overstory Trembling Aspen in Relation to Outbreaks of the Forest Tent Caterpillar and Spruce Budworm," Ecology, 39(2): 222-232, April 1958

"Oviposition Behavior of the Swaine Jack Pine Sawfly," Ghent and Wallace, Forest Science, 4 (3): 264-272, 1958

"Studies of the Feeding Orientation on the Jack Pine Sawfly, Neodiprion Pratti Banksianae ROH," Canadian Journal of Zoology, 36:175-183, 1958

"Raw-type Oviposition in Neodiprion Sawflies," Canadian Journal of Zoology, 37: 267-281, 1959

"A Study of the Group-feeding Behaviour of Larvae of the Jack Pine Sawfly," Behaviour, 16(1-2): 110-148, 1960

- "Regularity in Distribution of Supernumerary Needles," Forest Science, 6(4): 331-333, December 1960
- "On the Anatomy of Explanation, parts 1, 2, and 3," Bios 33 (2): 74-81, 1962; 33 (3): 133-144, 1962; and 34 (1): 11-23, 1963
- "The Logic of Experimental Design in the Biological Sciences," Bioscience, 16(1): 17-22, ca. 1963
- "A Deficit of Heresy," Biologist, 46(1-2): 1-14, 1963
- "Studies of Behaviour of the Tribolium Flour Beetle, Part I," Ecology, 44(2): 269-283, Spring 1963; and "Part II," Ecology, 47(3): 355-367, Spring 1966
- "Kendall's "Tau" Coefficient as an Index of Similarity in Comparisons of Plant or Animal Communities," The Canadian Entomologist, 95(6): 568-575, June 1963
- "An Experimental Gill Net Based on the Principle of the Latin Square," Transactions of the American Fish Society, 93(3), 233-242, July 1964
- "Regularities in the Size and Orientation of Juniper Fragments Attached to the Cases of the Bagworm," The Canadian Entomologist, 96(8): 1097-1106, August 1964
- "On the Goals of Science," The Biologist, 47(1-2):1-16, December 1964
- "A New Method of Assessing Contagion Applied to a Distribution of Red Ear Sunfish" (with Grinstead), Transactions of the American Fish Society, 94(2): 135-142, April 1965
- "Number Triangles Yielding the Numerators for Exact Solutions of the Wilcoxon Rank Sum Test," The Canadian Entomologist, 97(7): 701-715, July 1965
- "Science, Existentialism, and the Search for a Naturalistic Ethic," Bios, 36(3): 103-125, October 1965
- "Binomial Corner-association Assessment of Contagion: A Response to Certain Criticisms of the Method," Transactions of the American Fish Society, 95(4): 437-441, October 1966
- "A Model of Crossing-over Based on Alternately-oriented Dipoles," Journal of Theoretical Biology, 11:87-111, October 1966
- "On Teaching 'Population Biology' - Whatever That May Be," The Biologist, 49(1-2): 1-11, January 1967
- "Selected Problems in Biometry, Part 1, Some Applications of Elementary Set Theory in Biology," Bios, 38(1): 7-21, March 1967
- "Part 3, Chi-square as an Index of Disagreement", Bios, 38(4): 161-179, December 1967
- "Part 5, Applying the Binomial in a Research Context," Bios, 40 (4): 158-176, December 1969
- "Part 6, The Poisson Distribution," Bios, 42 (2): 78-92, May 1971
- "Part 7, Analysis of Contingency Tables by X squared," Bios, 43(3), 105-128, October 1972
- "Part 8, Some Applications of Contingency Tables in Research," Bios, 44(2): 63-85, 1973
- "Application of the 'Broken Stick' Formula to the Prediction of Random Time Intervals" (with Hanna), American Midland Naturalist, 79(2): 273-288, April 1968
- "Theory and Application of Several Tests of Sequential Nonrandomness," The Biologist, 53(4): 169-214, 1971
- "An Interval - Distribution Generator for Sequences of Elements of Two Kinds, Suited to Behavioral and Ecological Studies," American Midland Naturalist,

85(1): 188-195, 1971

- "A Method of Exact Testing of 2 X 2, 2 X 3, 3 X 3, and other Contingency Tables, Employing Binomial Coefficients," American Midland Naturalist, 88(1): 15-27, 1972
- "Calculation of Equilibrium Growth Rates in a Live-Table Format," The Biologist, 54(4): 137-139, November 1972
- "Depth Distributions Determined with Scuba and Associated Studies of the Freshwater Unionid Clams," E. complanata and A. grandis in Lake Bernard, Ontario (with Singer and Johnson-Singer), Canadian Journal of Zoology, 58(8): 1654-1663, 1978
- "Gamma as a Paired Statistic," American Midland Naturalist (pp. 192-195), 1984
- "Spatial Distribution Patterns in Pre-closure and Post-closure Conifer Plantations," Forest Science, 32(3): 559-575, 1986
- "An Index of Dispersion Based on Nearest Neighbor Analysis" (with Naida Zucker), American Midland Naturalist, 124: 184-187, 1990
- "Diversity and Niche Breadth," American Midland Naturalist, 126(2): 213-255, October 1991
- "Runs of Two Elements on a Circle" (with Jerrold Zar), American Midland Naturalist, 128: 377-396, 1992
- "Moran's Joins Tests" (with Warner and Mankin), American Midland Naturalist, 128(2):366-376, October 1992
- "Centrifugal and Centripetal Patterns in Line and Belt Transects," American Midland Naturalist, 130(2): 338-355, October 1993
- "A Possible Mode of Induction of Rinnateness in Honey Locusts," American Midland Naturalist, 133(2): 213-228, April 1995
- "Testing Tree-ring Crossdatings by Means of 1st and 2nd Difference Tests," American Midland Naturalist, 135(2): 317-331, April 1996
- "A Variant of the Hypergeometric Distribution for Large or Territorial Organisms," American Midland Naturalist, 137(2): 195-205, April 1997
- "Spurious Replication in Analysis: Making 2 X 2 Tables Out of Paired Data," American Midland Naturalist, 139: 391-393, April 1998
- "Statistical Assessment of Huntsman's 3-Y Salmon-Rainfall Correlation," American Midland Naturalist, 142 (1): 110-128, July 1999
- "Studies of Ballooning of the Bagworm Thyridopteryx Ephemeriformis," American Midland Naturalist, 142(2): 291-313, October 1999

Reprints by Ghent's Colleagues at the University of Illinois at Urbana-Champaign

Class Material and Notes:

- Biology 310
- Biology 351, Ken Watt Material, 1966
- Field Data, 1974
- "Testing for Significance of Morisita's Horn's"
- Biology 351 and 371
- Biology 352 - Bagworm Egg Counts
- Biology 371, 1971-73

Box 2:

Class Material and Notes:

- Biology 371, 1988
- Final Exam and Notes, 1990

Freshwater Clam Notes, 1994
 Bound Notes - Quantitative Biology, Fall 1996
 Course Packet - Fall and Spring 1996
 Final Exam, 1999
 Notes, Exams, Homework,
 Homework,
 Notes (5 folders),
 Binomial Coefficients
 Proportionate Replication
 Book 1, Folder, I
 Folder II
 Book 2, Folder I
 Folder II
 Transparencies, Normal Curve to Test, Regression Analysis of Variance (3
 folders)
 Biology 371 and 372, Normal Deviation Tables
 Lecture Transparencies

Box 3:

Class Material and Notes:

Biology 371, Interspecific Associations
 Interspecific Associations: Gamma Variant of Tau
 Biology 372, MSSD Test, Field Exercise, 1965-72
 Book 1, Moore-Wallis Flagged Differences, 1965-74
 Nearest Neighbor (incl. notes from Biol. 351), 1975-77
 1978
 Allerton Nettle Data, 1978
 Computing the Root Variance of the S Score, 1978
 Runs up and Down, 1978-79
 Circular Distribution Testing, 1979
 Bagworm Infestation, U of I Forestry, 1981
 Tally Sheets and Notes, ca. 1981-1987
 1982
 Mid-semester Exams, 1983-86
 Red Pine notes, 1984
 Date Transformations, 1984
 1985
 Homework and Answers, 1986
 Reference Items, 1988
 Data for Book II, 1989
 1992

Box 4:

Class Materials and Notes:

Concentration of Events, New Start, or Observation Period, ca. 1993
 Biology 372, Date of Birth Research, Folder I, 1994
 Folder II, 1994
 Photos, Spring 1995

Notes, 1997
 Notes, Exams, Homework
 Notes (6 folders)
 Bagworm Handouts (2 folders)
 Concordance (Kendall's W)
 Discussion Papers
 Fisher, "Lady Tasting Tea,"
 Gamma as a Paired Statistic
 Path Coefficients
 Statistics, Balsam Fir Seedlings
 Interval Analysis
 Negative Binomial Distribution
 Population Growth
 Quantitative Biology (2 folders)
 Sequential Data
 Examination of five "Tau" Variants
 3-D Contingency Analysis (2 folders)
 Part I: Wilcoxon 2 - Sample and Paired Exact Solutions

Box 5:

Class Materials and Notes:

Biology 372, Part II: Wilcoxon 2 - Sample and Paired Normal Approximations
 Part III: "Rho" and the Rankit Substitution
 Part IV: Kendall's "Tau,"
 Part V: "Tau," Gamma," in Continuing Tables
 Ecology, Ethology, and Evolution (EEE) 237 - Melton
 EEE 290, ca. 1992
 EEE 345, 1981-84
 EEE 346, 1983-85
 Microbiology 330 - Spiegelman
 Statistics 221 - Melton
 Genetics 234 (University of Oklahoma), 1962
 Statistics 304 (University of Chicago), 1955
 Statistics 305 (University of Chicago), 1956
 Zoology 234 (University of Oklahoma)
 Zoology 340 (University of Oklahoma)
 Zoology 340 (University of Oklahoma), Bagworm Study (2 folders, 1963-64)
 Zoology 391 (University of Oklahoma)
 Zoology 400 (University of Oklahoma)
 Other Course Material
 Brownlee Lecture Notes, University of Chicago, 1958
 Visiting Lecturer, Colby College, April 1974

Administrative:

Official Correspondence, University of Illinois
 Departmental Correspondence
 Administrative Correspondence, SURS
 New Book List: Illinois Natural History Survey Library, 1999
 Biology Library Funding Petition, 1982

Faculty Matters, 1989

Grant Proposals:

Proposals for Grants for Research

SFI Grant Application, 1968

Study of Distribution Patterns in Tree Plantations, 1981

Changes in Tree Distribution Patterns, 1982

Changes in Tree Distribution Patterns with Increased Age and Mortality, 1982

Research Proposal - USDA, 1982

National Science Foundation Proposal - Rejection, 1987

Correspondence, Reprint Requests, 1978-81

Professional Correspondence, 1962-69

1970-92

1992-2001

Animal Science Annual Report, 1991-93

Box 6:

Research Correspondence, 1962-84

(2 folders) 1986-92

1995-2000

Teaching and Graduate Student Advising, 1984-93

Graduate Students - Thesis and Dissertation Proposals, 1991-92

Research under Ghent, 1993

Graduate Students and Research Associates:

Bart, Henry - Stream Fish Community Structure, 1987

Bay, Paula - Recommendations, 1975

Birkey, Craig - "Behavioral Response of Diamondback Terrapins to Shrimp Odors,"
1991

Burley, Nancy - Zebra Finches, 1985

Condit, Richard - Correspondence and Reprints

Diehl, Robb - Christmas Bird Count Research, 1994

Evans, Amy L. - "Automation of Diversity and Niche Breadth Indices for Exact
Testing and Correlation" (mss), January 1, 1980

Franson, Sue - "Foraging Behavior of Neighboring Ant Colonies" (Ph.D
dissertation), 1985

Lynch's Similarity Index (mss), 2000

Gilbert, William H. - Vita and articles, 1975

Goldberg, Nancy H. - Western and Cassin's Kingbirds, notes and mss., March 1978

"Behavioral Flexibility and Foraging Strategies in Cassin's and Western
Kingbirds Breeding Sympatrically in Riparian Habitats in Central
Arizona," 1979

Green, Richard L. - Vita and mss., 1983-86

Hageman, Steven - Tempo and Mode of Evolution..., 1989

Harman, Jane - Master's Thesis (Swine herds), 1987

Recommendation, 1992

Kristy, Rita, 1986

Lowry - Ahmet-Jones - Graph

Lynch, Michael - Papers

Melton, Robert - Biological Abstracts on Cockroaches, 1990-91
 Post-Doctoral Proposal, 1992
 CR Examples, 1992
 Vita And Transcripts [RESTRICTED]
 Cockroaches (dissertation notes), 1992
 Monkin, Phil and Lorna Hanson - Creel Survey, 1981
 Nonney, D. - Y for Doublet Tetrohymena Data on Balsam Firs
 Panzer, Ron - Vita and Reprints
 Multidimensional Contingency Analysis, 1998
 Reilly, Whitney M. - Letters of Recommendation, 1993
 Robinson, Tara - Ph.D. Dissertation Proposal
 Sandburg, Sherri - Two-way Interactions Analysis, 1987
 Shearer, C.A. and L.C. Lane, mss.
 Siston, Alicia - Drosophila Melanogaster (Thesis), ca. 1995
 Skaller, Peter George - "Temporal Pattering of the Response to a Mirror by a
 Chichlig Fish" (Master's Thesis), 1966
 Sowa, Marian V. - "Epidemiology of Childhood Diseases....," mss.
 Stookey, Joseph Mitchell - "Factors Influencing Aggression in Newly Mixed Pigs"
 (Ph.D Thesis), 1991
 Vanderah, Glendy - Cerulean Warbler Thesis, 1992-95
 Vassmer, Mark - Chicken Weights (Eisner's), 1979-77
 Watt, K. E. F. - "The Application of Stored-program Electronic Digital Computers to
 Data Processing Problems in the Department of Land and Forest" - outline
 Whitt, Gregory - NSF Proposal, 1988
 Williams, Byron K. - "The Use of Analysis of Variance Procedures in Biological
 Studies"
 Young, Don - File

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Graduate Students and Research Associates:

Yun, Tao - Ph.D Thesis, "Ecological Study of Aquatic Hyphomyceter on Leaves in a
 Warm-water Stream," 1996
 Zar, Jerrold - Notes, 1989
 Correspondence, 1996
 ANOVA Design
 Three-way Analysis of Variance

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 Allerton Park - Floodplain Data and First Draft Mss.
 Tally Sheets, 160 Quadrants, Plants, 1975
 Animal Group Ranks - Delayed talk (no p. 1), 1992
 Bacon, Francis, 1561-1626, Background Notes
 Bagworms - Weather Records, 1950-64
 Tallies - North Sides of Streets, 1963-64
 Tallies - South Sides of Streets, 1963-64
 Interviews, Saturday Class, 1st Trial, 1964
 Wind Dispersal, 1964
 Photos, 1966

Photos on Junipers, 1972
 Juniper Bagworms, 1997
 Research, 1998
 Ballooning, 1999
 Calculations
 Juniper Photos, Proofs, and Negatives (Angela Bell)
 Literature
 Balsam Fir - Seedlings, 1953
 Spatial Patterns
 Stocked Quadrants, graphs
 Bank Swallow - "Patterns of Spatial Distribution and Related Studies of Burrows of
 the Bank Swallow," draft
 Mss. for American Midland Naturalist
 Drafts of Paper, with Comments
 "Regular Spatial Patterns of Bank Swallow Tunnel Entrances with some
 Possible Evolutionary Implications," for American Midland Naturalist,
 1998
 "Regularity in Spacing of Bank Swallow Nest Burrows and Associated
 Observations," Mss.
 Camera-quality copies of Figures 1-4, May 2000
 Mss., Original Paste-ups, ca. 1999
 Tunnel Article Drafts for Wilson Bulletin and Referees' Comments, 2000
 Manuscripts (4 folders)
 Reviews of Bank Swallow Paper
 Bank Swallow Articles by others with Notes
 Coalescing Tunnels
 Compass Bearings
 Coloniality - Notes and Article
 Copeman's Pit Notes - C8, F7, 35; C6, F9, 70, September 1980
 Cottrell's Pit Notes, September 1980
 Dunbar's Pit, Group W/Coalescing Tunnels F5, C2 (possible recalculations),
 September 1980
 Flower's Pit, F2, C6, September 1980
 Nesting Holes - Diagrams and Negatives, ca. 1980
 "Extended Joins Testing to Second Nearest Neighbors and More Distant
 Neighbors in Ecological Studies of Regular Lattices," February 29,
 2000
 Mss. Figures for Papers

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Research Studies, Notes, Manuscripts:
 Bank Swallows - Hole Diagram
 Lecture Notes and Transparencies
 Linear Lake Notes
 Literature Research
 Nests at Heart Lake
 Nest Study Reprints
 Notes, summer 1999
 Second & Third Nearest Neighbor Notes

Semi-retired Calculations
 Nest Distribution Statistical Test
 Nests - Normal Deviation and Mss., ca. 1997
 Notes and Transparencies, ca. 1974-1999
 Notebook, 1981-88
 Notebook, 1997-98
 Ring Binder with Notes
 Papers by others on Bank Swallows
 Plywood Field Notes
 Strong Township Dump, September 1980
 Tables for Studies, ca. 1999
 Sundridge Field Notes, 1978
 Study Slides
 Transparencies and Photographs, ca. 1978-1999
 Upward Sloping Tunnels
 BGSL - Data
 Talk 1
 Talks 2 & 3
 Talk, w/Prof. Lee
 Talk 4, Ecolunch, Transparencies, 1989
 Growth, Nov. 17, 1989
 Regulation, Nov. 17, 1989
 Binomial Coefficients and the Negative Binomial
 Biometrics Tables submitted, Feb. 8, 1967
 Biostatistical Analyses, 1993
 Notes
 Graphs and Tables, Slides
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 Birds, Trelease Woods, 1948-76
 Body and Size Evolution - Biological Abstract, 1990-91
 Concept of Alloenegeritic Change - Robert Melton, 1992
 Botanical Research Notes and Correspondence, 1993
 Breeding Bird of Black Sturgeon Lake, Ontario and Aroostook County, Maine
 Broken Stick - Study with Young and Welke
 Broken Stick and Clock-Tick Problem - New Work, Pielo and DeVita Papers and
 others
 Broken Stick and Clock-Tick Problem, December 1983
 Broken Stick and Clock-Tick Problem Notebook - Binomial Sequential Sampling
 Rachel Carson Study - Notes, 1966
 Quotes Questionnaire, incomplete, 1965
 Questionnaire 3U, I, 1965
 II, 1966
 Negative Responses, 3L, 1965
 IU:2L, 1965
 2 Boxes, 1968

1 or no Boxes, ca. 1968
 Medical, ca. 1965
 Jean Englund's Questionnaires, ca. 1968
 Evaluation of Public Comments on Silent Spring, 1962-63
Silent Spring Chapter Comparisons
 Biography (Jean Englund), Notes and Correspondence

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Rachel Carson Study - 1968 Questionnaire
 Lab Questionnaire, July 1968
 Masters for Questionnaires, 1965
 Englund - Ghent Correspondence, 1968
 Data
Silent Spring Paper, 1st Draft, ca. 1968
Silent Spring Study, Data Cards and Data Analysis, 1968
 Questionnaire of 1967
 Unclassified Questionnaire, ca. 1968
 Correspondence, 1968
 C Fe Host Figures - Cumulative Eggs Laid, ca. 1992
 Centrifugal and Centripetal Patterns - Seminar, ca. 1994
 Paper Comments, 1994
 Charts - Unlabelled Notebooks (2 folders)
 Chi-square Notes, 1989
 Chick Embryo Data, ca. 1992
 Civil Aeronautics Board Printed Records, 1965
 Clam Research - Paper Mss., ca. 1972
 Paper Mss., 1973
 Papers Mss. and Notes, ca. 1973
 Mss. and Analysis, December 1972
 Analysis, 1973
 Anodonta grandis Notes
 Cinda's Notes
 Clam Diversity by Stream Order - Bart, 1956-88
 Elliptio Field Observation Notes (from original plywood field note plates),
 July 1974
 Plottings (plywood and tile field notes), 1974
 Elliptio Electron Micrograph Photos
 Elliptio and Anodonta Notes
 Freshwater Clam Notes
 Freshwater Clam Mss. and Photos
 Freshwater Clam Notebook
 Interlake Distance Measurements
 Measurements
 Notes, 1988

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Research Studies, Notes, Manuscripts:

- Clam Research, 1999
- 2001
- Elliptio (see Oversize, Box 20)
- Clock-Tick Problem (3 folders)
- Cockroaches - German Cockroach Data, ca. 1990
- Juvenile Cockroach Data, ca. 1990-91
- Photographs and Negatives
- Commonwealth Scientific and Industrial Research Organization Correspondence, 1960-61
- Competition Studies in Progressively More Natural Tree Plantations - Mss. and Notes, 1978-86
- Concordance Studies - Mosquito and Bird Examples
- Concordance Regression as a Measure of Community Stability, ca. 1991-93
- Confidence Limits for Proportions Notes
- Crater Coordinate Standards Tally Sheets, 1968-69
- Crayfish - References
- Research, 1995
- "Critical Value Tables for Concentration of Events Near the Ends or Middle of a Row of Stalls or Pens"
- Dandelions - Notes
- Danish Pigs - Research, 1996-98
- Research, Summer 1998
- Research, 1999
- Pederson's Pigs
- Date of Birth Project - Research Material 1992-93
- Chronological Clippings Files (primarily obituaries):
- November 1992
- December 1992
- January 1993
- February 1993
- March 1993
- April 1993
- May 1993
- September 1993
- October 1993
- November 1993
- December 1993
- January 1994
- February 1994
- March 1994
- April 1994
- May 1994
- December 1994
- January 1995
- February 1995
- March 1995
- April 1995

May 1995
June 1995
July 1995
August 1995
September 1995

Box 12:

Research Studies, Notes, Manuscripts:

Date of Birth Project, October 1995

Chronological Clippings Files (primarily obituaries):

November 1995
December 1995
January 1996
February 1996
March 1996
April 1996
May 1996
June 1996
July 1996
August 1996
September 1996
October 1996
November 1996
December 1996
January 1996
February 1996
March 1996
April 1996
May 1997
June 1997
November 1997
December 1997
January 1998
February 1998
March 1998
April 1998
May 1998
October 1998
November 1998
December 1998
January 1999
February 1999
March 1999
April 1999
May 1999
Late October/Early November 1999
December 1999
January 2000
February 2000

Box 13:

Research Studies, Notes, Manuscripts:

Date of Birth Project, Chronological Clippings Files (primarily obituaries):

March 2000

April 2000

Dates and Numbers

Tallies

Distribution of 2151 Births by 15 Minute Intervals on a 24-Hour Clock (Zar)

C-U News-Gazette, 3 Years of Births

Clippings, undated

Notes, 1995

Notes, 1998 (2 folders)

Notes (4 folders)

Obituary Survey, Kane Data

Twins Study

Date of Birth Card File

Box 14:

Research Studies, Notes, Manuscripts:

Date Of Birth Project, Twins Study

"New Names in the News"

Diversity and Niche Breadths (3 folders)

"Diversity and Sample Size in Community Analyses," Kaesler and Herricks
typescript

Drug Sampling, 1995

Earwig Research, 1996

Efficiency of Conversion of Ingested Food (ECI), 1990-91

Exact Continuity Corrections

Fish, Nearest Neighbor Test

Fish Spawning, Forest Glen Spring Data

Fish Studies

Fish Studies - Research, Gamma Analysis, with Susan Franson, Aug. 1999

Working Notes, Gamma Paper

Joint Research with Susan Franson, 1996

Joint Paper Mss., 1996

Fisheries, Correspondence and Notes, 1965-81

Fisheries and Rainfall

Fishery Turn Tests

Forest Entomology Negatives, University of Oklahoma

Forest Insect Laboratory, Sault Ste. Marie, Ontario, Annual Technical Report, 1950

Forest Insect Laboratory, 1952

Forest Research Correspondence and Notes

Forest Research Plates

Fruit Fly Study, with Grad Student

Fungal Ecology Project, ca. 1996

Gamma Paper with Susan Franson (2 folders), 2001

Growth Curves Study - Birds, ca. 1992

Georgiadus, spp. Bovid, Experiment B Decline Data, ca. 1992

Exponential Decline, ca. 1992
 Notes and Graphs, 1991
 Bovid, ca. 1990
 Hyrax, Elephant, and Elephant Seal, ca. 1992
 Insectivore, ca. 1992
 Mammal, Polynomial Models, ca. 1992
 Rodents, ca. 1992
 Relative Growth Rate, 1990-91
 Very General Growth Model, ca. 1992
 "Effects of Living Space Quantity and Quality on Behavior and Skin Lesions
 in Growing-Finishing Pigs," Ghent and Others, Mss., 199X
 Herbaceous Plants, Allerton Floodplain
 Honey Locust, Data, 1987
 Manuscript
 Study, 1981-82
 Hudson Bay Company - Fur Returns, 1920-1961; 1964
 Importance of Low Talus (Wilson Bulletin Mss.), partial
 In-Community Comparisons
 Interspecific Association - "An Approach to the Study of Community Interactions
 through 'Special Sectionings' of Interspecific Association," paper, 1976

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Research Studies, Notes, Manuscripts:

Island Evolution References, ca. 1992
 Jack Pine Study Tally Sheets, 1980-81
 Jack Pine Sawfly, ca. 1964
 Joins Testing - To Second Nearest Neighbor and More Distant Neighbor, Mss.
 Associations, 1988-2000
 Kansas Small Game Wildlife Surveys, ca. 1997-98
 Kolmogorov -Smirnov Test
 Leaf Specimen for New York Botanical Garden, 1978
 Mean and Variance of the Binomial
 Metabolic Water, 1990-91
 Mice - CR Paper, Transparencies, ca. 1992
 Peromyscus Calif., rgr. Declien Formula Analysis, ca. 1992
 CR Peromyscus Growth, 1992
 CR Talk, 1991
 P. Americana Weight Data, ca. 1992
 Measurements of Mice of Islands
 Mouse Identification for Bagworm Study
 Moon Surface Photographs, 1968
 Mosquito - Hysimachia Problem (Horsfall)
 Mosquito Females, South Cook County, 1955-76
 Moving Average Paper, Mss. and Notes
 Nearest Neighbor Analysis - Fiddler Crabs and Bank Swallows, with Nalda Zucker
 Nearest Neighbors - Original Copies and Tally Sheets
 Second Nearest Neighbor, Method, 2000
 Extended Joins Testing to Second Nearest Neighbor, Mss., 2000
 Neyman Type A Contagions

One-sided Significance Tests, 1976-79
 Osmorhiza: Claytoni vs. Longistylis, with P. Lowry
 Encyclopedia of Pest Management, proposed entry, 2000
 Pine Trees - Third Nearest Neighbors
 Slides
 Notes
 Incomplete Lattices
 St. Williams, Pinus nigra, 7/21/22/81 (27 X 38 = 1026), I, June 1984

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 Research, Fort Huachuca
 Needle Studies - Research
 Pinus caribaea, 1961-62
 Pinus cembroices, 1961-62
 Pinus echinata, 1961-62
 Pinus edulis, 1961-62
 Pinus flexidis, 1961-62
 Pinus glabra, 1961-62
 Pinus latifolia, 1961-62
 Pinus leiophylla, var. chichuahua, 1961-62
 Pinus ponderosa, var. arizonica, 1961-62
 Pinus nigida, 1961-62
 Pinus virginiana, 1961-62
 Red Pine, Midhurst, Ontario, Aug. 23, 1982
 White Pine, Supernumerary Fascicles
 Scots Pine, Urbana
 Jack Pine, Aug. 23, 1982
 Numbers, ca. 1995
 Nut Bearing, Notes, 1981
 Biodiversity (see Oversize, box 20)
 Plants, Ontario - Correspondence and Notes, 1950-58
 Lists
 Plants - Fifth Year Measures
 Poison Ivy Data
 Predation Risk and Microhabitat Preferences - Formanowicz and Bobka, 1988
 Proof of Exponential Decline Model, ca. 1992
 Proportionate Density Paper Notes, 1966
 Purple Sandpiper - Statistical Study Consulting, ca. 1976
 Paired T Test and Random Block Analysis - Not more than 1 in 5 between 1 and 5
 (Origin), Zar letter
 Red Pine Study - Research Notes
 20th Year Diameters, Parry Sound, 1980
 Joins Testing - 2nd and More Distant Neighbor, Jan. 2000
 Phase II, Half-regular Lattices, 1989
 Midhurst Plot Calculations, 1984-85
 1986
 Midhurst, 8/12/81, Block 2 (19 X 33 = 627) and 3 (19 X 53 = 1027), June

1984
 Midhurst, Young Trees, 5-6 Years Old, height 81"/80", 200 (20 X 10) Tree
 Block, 8/21/81, Kane 1984
 Midhurst, 1983-84
 Coombs Plot, Midhurst, 2nd Lecture Transparencies, 1984
 Half-regular Joins, 1985
 1st Nearest Neighbor Analysis (upper 28 rows), Nov. 28, 1999

Box 17:

Research Studies, Notes, Manuscripts:

Red Pine Study - Second Nearest Neighbor, 1999
 Notes, 1982-83
 Notes
 Deep River, 1959-88
 Photos
 River Data - Physical Factors (see Oversize, box 20)
 Runs on a Ring, 1986-90
 1992
 Salmon Fisheries Research - Atlantic Salmon Federation, 1979
 Data Base
 Millbank Counts and Temperature, 1952, 1954-64
 Numerical Analysis
 Notes
 Curventon Counts, 1964-68
 Reports, 1965-68
 Graphs
 River Descriptions
 Paper: Illustrations & Tables - negatives
 Studies, ca. 1974
 Angling Status
 Salmon
 Methods and Measures
 Salmon-Rainfall Study - Data: Miramichi Fishing Rainfall Variances
 A Statistical Re-examination of Huntsman's 3-year Correlation
 Chatham and Variances for Single Month Correlation - April-Oct.
 Rainfall Correlations Mss., Ghent and Hanna
 Notes
 Salmon and Rainfall in Miramichi, Mss., 1968
 Salmon and Rainfall, 1990
 Flow-Catch Data, Miramichi River (Bruce Hanna) (see Oversize, box 20)
 Miramichi Salmon Rainfall, Spring 1968 (see Oversize, box 20)
 Sangamon River Plants
 Sawfly Notes
 Sawfly and Bagworm Photos
 Sawfly Feeding Negatives
 Sawfly Larvae Photographs and Negatives
 Sei Whale Data, ca. 1992
 Sequential Nonrandomness, Draft of Chapter

Box 18:

Research Studies, Notes, Manuscripts:

"Serial Sectionings" Mss.
 Shagbark Hickory Study, 1987
 Shannon-Weaver's H, Analysis, 1999
 Snail-Tree Notes
 Snails - "Niche Breadth and Diversity in Terrestrial Snails" Mss.
 Sport Fishing Institute, 1966
 Report, 1967
 Spruce - Fairly Lake (Brunel Township), 1983
 Spruce Budworm - Impact on Succession, 1988
 Photos
 Spruce and Fir Plates and Negatives
 Squirrel Studies - Distribution Research, 1987
 Survey Questionnaires
 Surveys
 Gray Squirrels, 1955-95
 Gray, White, and Fox Squirrels
 Gray and Fox Squirrel Distribution in Wisconsin
 Melanistic Squirrels
 White Squirrels -
 White and Gray Surveys, Olney, 1976-85
 White and Others, Olney area Maps, 1985
 Notes
 Notes, 1984
 Notes, 1992-99
 Survey Questionnaires
 Survey Questionnaires, Jan. 28-29, 1999
 Survey, 1988-2001
 Olney, 1996
 Correspondence and Clippings
 Statistical References, photocopies
 Statistical Tests, Selection
 Statistical Tables for Research, ca. 1993
 Statistics - 2" X 2" Glass Slides

Box 19:

Research Studies, Notes, Manuscripts:

Tanglefoot Array, Photo
 "Temporal Patterns of Behavior," by Robert Fagan and Donald Young, Nov. 1976
 Theoretical Biology Photographic Prints
 Thyridopteryx - 2nd Nearest Neighbor
 3rd Nearest Neighbor
 Tree Distribution
 Tree Distribution Patterns
 Trees - Notes
 Tree Ring Cross-Dating with Sheila Mochell

Tree Ring Research - Bannister
Tribolium 3-Dimensional Contagion
Tribolium Behavior Selection Study, with Joan Lawson, 1960-62
Wasp Nest Photos
Weyerhaeuser: Reports and Correspondence, 1984
White Spruce Research Notes (2 folders), 1982
Whitney's Table - Chickens
Wilcoxon Exact Tests
Unidentified - Photos
 Photos to Research Project 1377
 Zip Disk with Research Notes
Journals Examined for Book Literature References
Research Citations by Ghent
VM Archives Users Guide
Bibliographical Cards (card box), alphabetical by Author
Bibliographical Cards (2 card boxes), by Topic

Box 20 (oversize):

Research Studies, Notes, Manuscripts:
 2-Dimensional Corner Association (2 Binders)
 Salmon Fisheries - Flow-Catch Data, Miramichi River (Bruce Hanna)
 Miramichi Salmon Rainfall (1 binder), Spring 1968
 Pine Study - Biodiversity
 River Data - Physical Factors (1 binder)
 Clam Research - Elliptio
Statistical Charts for Classes and Talks