

Article links study described in LARR VI:2 (196) and is being brought up-to-date and prepared for publication.

86. Erminio G. Neglia
University of Toronto (Canada)
Una recapitulación de la renovación

del teatro hispanoamericano en el siglo XX.

An article-length study of the theatrical revolution in Spanish America during 1920–1940. Research attempts to throw new light on the true beginnings of the new theatre. Begun, 1971.

NATURAL AND APPLIED SCIENCES

AGRICULTURE

87. J. K. Dow
University of Florida
Agricultural Development in Ecuador.

The University of Florida is working with the National Agricultural Research Institute (INIAP) in Quito to establish a Department of Agricultural Economics in INIAP. Research currently is being conducted at two levels: macroeconomic and microeconomic. Microeconomic research is aimed at: 1) methods of production, 2) costs of production, 3) agricultural production potential, and 4) evaluation of research programs. Macroeconomic research covers: 1) agricultural policy, 2) agricultural productivity, 3) international trade, and 4) determination of priorities. Begun, 1971. EDC, 1974. /Inter-American Development Bank and Government of Ecuador.

88. Donald W. Larson
Ohio State University
With: Norman Rask
An Analysis of the Consumption-Sowing Relationship on Farms in Brazil.

The main objectives of this study are: 1) to determine the functional relation-

ship between consumption and income for various farm sizes; 2) to describe the investment pattern of farms at different income levels; and 3) to measure the potential for rural savings on farms. Begun, 1971. EDC, 1972. /USAID/OSU Capital Formation Project.

89. ———
With: Richard M. Meyer
The Capital Formation, Growth and Development of Local Marketing Farms in a Developing Agriculture: The Ribeirão Preto Region of São Paulo.

The general objective of this study is to examine the relationship between capital formation on farms and the development of marketing facilities at the community level. Begun, 1971. EDC, 1972. /USAID/OSU Capital Formation Project.

90. Richard L. Meyer
Ohio State University
With: Norman Rask and Joaquin C. Engler

Brazil's Program for Increasing Self-Sufficiency in Wheat.
Project analyzes Brazil's program to stimulate wheat production, its impact on farm transformations and technological change, and its effects on rural non-farm infrastructure.

Latin American Research Review

91. ———

Modernization of the Brazilian Cattle Industry.

Project described in LARR VI:2 (225) is on-going. EDC, 1972.

92. G. O. Mott

University of Florida

With: Faculties of the Departments of Agronomy, Animal Science, Soils, Vegetable Crops, Agricultural Economics, and Agricultural Engineering

Agricultural Development in Guyana.

The research in this project is divided up into a number of subprojects to cover the work being conducted by the various disciplines mentioned above. The soils research includes the characterization of the principle soil series of the Intermediate Savannahs of Guyana and a study of their potential for crop production. The agronomic crops included in the research are peanuts, soybeans, corn sorghum, and cassava. In vegetable crops a number of factors are being investigated including nutrient requirements for vegetable growing in Guyana, the best adapted kinds and varieties of vegetables of economic importance, the required cultural and pesticide practices for acceptable growth and development of vegetables as well as transport, storage, and marketing. In the Intermediate Savannahs of Guyana the Government is attempting to develop a viable livestock industry and the research in this area includes the development of improved grasses and legumes as well as the improvement of the beef cattle herds in the region. The Department of Agricultural Economics is concerned with the overall agricultural development of the country and the agronomic feasibility of

developing various agricultural enterprises. They are making a complete study of production cost, marketing facilities, and the availability of local and overseas markets for their products. The Department of Agricultural Engineering is concerned with the physical development of an agricultural research station in the Intermediate Savannahs of the country. Begun, 1970. EDC, 1975. Research results will be published by the University of Florida as soon as sufficient data are available. /Government of Guyana and USAID.

93. Norman Rask

Ohio State University

With: Richard Meyer

Capital Formation Process in Agriculture.

A continuing study of the capital formation process at the farm level in Brazil, focusing on policies and technologies instrumental in speeding the growth in productive potential in the agricultural sector. A broad range of intensive farm level surveys have been completed in several types of farming areas. Analytical studies in the area of agricultural credit, policy and use, mechanization, fertilizer use, price policy, and capital formation are underway. See additional descriptions of project in LARR V:2 (457) and IV:2 (571). EDC, 1973. To be published by the Department of Agricultural Economics of Ohio State University. Preliminary reports are available. /USAID.

94. P. A. Sanchez

North Carolina State University

With: S. W. Buol, E. J. Kamprath, R. E. McCollum, and R. K. Perrin

Soil Fertility Research in Latin America.

1) Volcanic ash affected Central American Highlands (Guatemala): Nitrogen movement in wet and dry seasons, responses to Nitrogen, Phosphorus and micronutrient fertilization on corn, rice, wheat, beans, and sorghum; 2) Upper Amazon Basin (Yurimaguas, Peru): Soil management under shifting cultivation and alternatives for continuous cropping. Varietal tolerance to soil acidity and drought; 3) Campo Cerrado (Brasilia, Brazil): Nitrogen movement, phosphorus and liming application, varietal tolerance to soil acidity and drought; and 4) Region wide: Test of a fertility capability soil classification system. Begun, 1970. EDC, 1975. /USAID.

BOTANY

95. L. R. Holdridge
Centro Científica Tropical (Costa Rica)
Manual del campo de los árboles de Costa Rica.

La idea es desarrollar un manual para identificar los árboles en el campo. Las descripciones van a ser cortas con los árboles agrupados por características dendrológicas fáciles a reconocer. También se está tomando fotografías de ramitas para acompañar las descripciones. Iniciado, 1970. FAT, 1975. Se planean juntar las tres secciones del trabajo y publicarlas en 1973. /Instituto Interamericano de Ciencias Agrícolas en Turrialba.

96. Marshall C. Johnston
University of Texas
With: students
Flora of the Chihuahuan Desert.
Project will inventory the seed plants of the Chihuahuan desert in North-Central Mexico. A book will result from this

study describing the plants and giving information on their importance to man. Begun, 1972. EDC, 1976. /National Science Foundation.

97. Richard W. Pohl
Iowa State University
With: Gerrit Davidse
Taxonomic Studies on the Grass Flora of Central America.
Continues. See LARR VI:2 (231).

CHEMISTRY

98. Irma Pennacchiotti Monti
Universidad de Chile
Con: Hermann Schmidt-Hebbel y Keryma Alamo A.

Estudio de las proteínas de alimentos chilenos.

Se pretende conocer el valor aminoacídico de los alimentos que produce el país, con el fin de que los nutricionistas puedan establecer dietas en base a valores nacionales. Iniciado, 1951. /Universidad de Chile.

ECOLOGY

99. W. Frank Blair
University of Texas
With: Otto Solbrig, Harvard, Jorge Morello, Argentina, Ernesto Hajek, Chile, and Harold Mooney, Stanford
Origin and Structure of Ecosystems.
Continues. See LARR VI:2 (229).

100. Howard E. Daugherty
University of Georgia
Man-Induced Ecologic Change in El Salvador.
An historical analysis of the impact of human activities on the various ecosystems of El Salvador, with emphasis

Latin American Research Review

on contemporary environmental problems—population growth, vegetation destruction, soil erosion, and animal depletions. Begun, 1968. /UCLA, NDEA IV, University of Georgia.

101. Mário Guimarães Ferri
Universidade de São Paulo (Brasil)
Transformações qualitativas e quantitativas em vegetação de "cerrado" protegida.

O projeto discute e indica alterações de fisionomia e da composição florística em consequência da proteção há 30 anos em um cerrado de Emas (Est. S.P.). Discute a possibilidade de áreas de "cerrado" invadirem outras, primitivamente coberta por florestas e a possibilidade inversa da floresta ocupar áreas primitivamente de "cerrado." /Universidade de São Paulo.

102. Gordon W. Frankie
Texas A & M University
With: H. G. Baker, University of California, Berkeley
Comparative Ecosystem Study of Tropical Lowland Wet and Dry Forests.

Investigation emphasizes the study of flowering plants from the standpoint of their reproductive biology. Several different aspects are included in the research, but phenology, pollination, biology, and seed dispersal, according to community type, are stressed. Although the study is basic in nature, it is hoped that eventually tropical foresters and others can make practical use of the information being developed. Begun, 1968. /National Science Foundation.

103. J. T. Spencer
Organization for Tropical Studies
With: James S. Bethel, Herbert G. Baker, and Gordon W. Frankie

Comparative Ecological Study of Tropical Lowland Forest Communities.

A comparative study of a tropical wet and a tropical dry forest ecosystem. Work thus far has resulted in: 1) the establishment of two major ecological study areas in Costa Rica; 2) the collection of a considerable amount of ecological information defining the basic ecosystems of these areas; 3) the initiation of a number of specific research studies examining the interactions and processes of these ecosystems; 4) development and installation of an environmental data logging system which will be of general use. Begun, 1968. /National Science Foundation.

GEOGRAPHY

104. Homer Aschmann
University of California, Riverside
With: Conrad Bahre and Marvin Dodge
Man's Effects on the Ecosystems of Mediterranean Chile and California.

Research forms part of a major project on the Origin and Structure of Ecosystems, one in a series in the larger International Biological Program. Begun, 1970. EDC, 1973. /National Science Foundation.

105. Ward Barrett
University of Minnesota
The Municipal Meat Supply of Colonial Cuernavaca.

A study of the seventeenth and eighteenth century *abasto* contracts, which give information on prices and suppliers, the way the supply system worked, and the contract prices series for

mutton and beef from 1630–1800. Begun, 1970. EDC, 1972. /Social Science Research Council, University of Minnesota.

106. ———

Geography of the Colonial Sugar Industry of Morelos, Mexico.

Work continues with new EDC, 1973. A book resulting from this research, *The Sugar Hacienda of the Marqueses del Valle*, was published by the University of Minnesota Press, 1970.

107. ———

Aspects of the Geography of Colonial Cuernavaca, Mexico.

Investigations on the geographical importance of the sugar industry, supply of livestock, and population distribution.

108. Brian W. Blouet
University of Nebraska

Land and Land Policy in Nineteenth Century Trinidad.

A study of the perception and utilization of land resources in 19th century Trinidad by the various cultural groups. Research studies the process of settlement foundation by former slaves, and the programs introduced to make crown land available to persons of African stock and eventually to East Indians who were introduced as indentured laborers. Begun, 1969. EDC, 1975.

109. Donald D. Brand
University of Texas

Relaciones Geográficas.

The identification and analysis of plants and animals mentioned in the *Relaciones geográficas del siglo XVI* is prepared for publication. The preparation of a volume of notes will take several more years. See also LARR VI:2 (315) and II:2 (637). EDC, 1972–73.

110. Tamara Brunnschweiler
Michigan State University

Recent German Contributions to the Social Sciences, especially to the Geography of South America.

A study of an interpretation of the present state of South American research in Germany. Project will show new trends in research institutions as well as individual scholars, give a geographic interpretation of what is happening in contemporary South America and how far German scientists have influenced the development, and take an overall view of problems encountered and investigation methods used by German scholars. This study will be a pilot project for several underdeveloped countries. Begun, 1971. EDC, 1972–73. /Ford Foundation Grant from MSU International Programs.

111. G. F. Carter
Texas A & M University

Races of Chickens in Latin America.

Project studies the evidence for pre-Columbian chickens in America. A survey of Mexican chickens shows a predominance of Asiatic races. Literary surveys show the same for South America. /Texas A & M University. A preliminary publication, "The Case for pre-Columbian Chickens in South America," appeared in *Man Across the Pacific*, University of Texas Press, 1971.

112. Alan K. Craig
Florida Atlantic University

The Caribbean Guano Islands.

Article describes the historical background, geology, and physiography of these islands. Begun, 1970. EDC, 1973.

Latin American Research Review

113. Howard E. Daugherty
University of Georgia

Man-Induced Ecologic Change in
El Salvador.

An analysis of the nature and degree of man-induced ecologic change in El Salvador identifying the principal human factors influencing the post-glacial evolution of the contemporary ecosystems in that country. Begun, 1968. EDC, 1972. /Latin American Center and Department of Geography at University of California, Los Angeles and the Institute of Ecology, University of Georgia. A related article, "Human Impact on the Zoogeography of El Salvador," appeared in *Biological Conservation*, April 1972.

114. ———

Establishment of the Montecristo
Cloud Forest Reserve El Salvador.

A project of applied conservation ecology which attempts to establish a forest reserve and wildlife refuge in the cloud forest of the Montecristo region of northwestern El Salvador—one of the few remaining undisturbed cloud forests in Middle America. Begun, 1971. EDC, 1972. /Conservation Foundation, Washington, D.C.

115. David J. de Laubenfels
Syracuse University

Vegetation Patterns in Brazil.

The objective of the research is to produce a map at 1:5,000,000 of the vegetation of Brazil and a description of the major distinctions delimited. Begun, 1971. EDC, 1972. /Government of Brazil.

116. William M. Denevan
University of Wisconsin, Madison
With: Alberta Zucchi (I.V.I.C., Caracas)

Aboriginal Agriculture in the Ori-
noco Llanos of Venezuela: Ecology
and Archaeology.

Study of the relic ridged fields near Río Apare in southeastern Barinas and the contemporary Karinya savanna cultivation in southeastern Anzoategui. Begun, 1972. EDC, 1973. /N.S.F.

117. C. Daniel Dillman
Northern Illinois University
Migrations and Landscape Change
in the Backlands of Brazil.

Analysis of visible landscape imprints in a frontier region that reflects differential attitudes of migrants toward and perception of their new habitat. Begun, 1971. EDC, 1973.

118. ———
The Mexico-U.S. Border: Cultural
Transition Zone.

Analysis of the arrangement and forms of man-made elements resulting from the presence of different culture groups and their alteration of the natural landscape. Begun, 1970. EDC, 1972-73.

119. Charles H. V. Ebert
State University of New York, Buffalo
Soil Nutrient Study of Alluvial
Soil in the Peruvian Amazon Basin.

An examination of alluvial deposits of different ages to determine the original level of primary nutrients and the subsequent loss through natural leaching and through civilization. Field testing was carried out in August 1971 downstream from Iquitos along the Yana Mono and Napo rivers and under Manioc in Yagua Indian settlements. EDC, 1973. /New York State Research Foundation.

120. Clinton R. Edwards
University of Wisconsin, Milwaukee
The Relaciones Geográficas de Indias.
Evaluation of the 16th century *Relaciones* continues. Project described in LARR V: 2 (540), IV:2 (746), and III:2 (743). Current research is on the *Relaciones* for Yucatán and South America. EDC, 1975.
121. ———
Aboriginal Watercraft of Middle America.
Characteristics, distribution, and significance to the dispersal of men and ideas of watercraft in Middle America. Identification of coastal routes of communication and trade. Current research is on Mexico. Begun, 1971. EDC, 1974. /Fulbright-Hays. A related study, *Aboriginal Watercraft on the Pacific Coast of South America*, Ibero-American: 47, was published by the University of California Press, Berkeley, 1965.
122. Daniel W. Gade
University of Vermont
Environmental Perception of the Chaupiyunga Zone.
Settlement, disease, and land use of the semitropical valleys in the Department of Apurímac, Peru, and Indian, Spanish colonial, and modern Peruvian perception of these semitropical valleys in the high mountain ecology of the Central Andes. Begun, 1968. EDC, 1973.
123. J. H. Galloway
University of Toronto
Historical Geography of Northeastern Brazil.
A study of the historical geography of Northeastern Brazil from 1500 to 1900.
124. Alfonso Gonzalez
University of Calgary (Canada)
Recent Decline of Spanish Immigration to Latin America.
A study of the post-World War II trends in Spanish immigration with emphasis on the features of immigration to Latin America and its decline beginning in the late 1950's. Begun, 1971. EDC, 1972.
125. E. E. Hegen
Western Kentucky University
Development Problems of Colombian Amazonia.
An analysis of forms, functions, and processes of intensification of resource use and settlement in Colombia's Amazon region. Special emphasis is given to the problems and needs of transportation. Begun, 1971. EDC, 1972. A related work, *Highways into the Upper Amazon Basin*, was published by the University of Florida Press, 1966.
126. ———
Black and White Waters: An Analysis of Streams in the Leticia Corridor.
An analysis of the water characteristics and chemistry of streams in the Loretoyacu and Amacu-yacu watersheds. Fieldwork at forty test sites at Colombia was undertaken in summer 1971. Begun, 1971. EDC, 1972. /University of Alabama Faculty Research Grant.
127. Oscar H. Horst
Western Michigan University
With: Roland Ebel
Village in Transition: Patterns of Social, Economic, and Political Change in a Highland Guatemalan Community.
EDC, 1972. See LARR VI:2 (318), II:2 (711), and I:2 (707).

128. ———

With: Richard McGehee and David Kuenzi

Modern Processes and the Recent Geologic Evolution of the Western Pacific Coastal Plain of Guatemala. Continues. See LARR VI:2 (319).

129. David R. W. Jones

University of Calgary (Canada)

The Ideology and Practice of Land Reform.

An examination of the major trends in land reform, the theories behind each type, and the success or failure of each reform. The study is confined largely to the tropics and is intended as a more thorough version of Doreen Warriner's work with greater emphasis on ideologies. Begun, 1971. EDC, 1974.

130. Clarissa T. Kimber

Texas A & M University

With: Adolpho Chavey

Folk Use of Medicinal Plants in the Texas Mexico Borderlands.

A study of the kinds of plants, uses of these plants, and the role of plants in the folk medicine of the borderlands. Begun, 1971. EDC, 1973. /HEW.

131. Barry Lentnek

State University of New York, Buffalo

With: Instituto Brasileiro do Geografia e Estadística

Geo-Educational Regions of Brazil.

A spatial analysis of the educational regions of Brazil, based on a census of all freshmen and seniors of institutions of higher learning completed by IBGE in 1972. The analysis will result in a set of maps showing: the actual areas from which units draw students, the areas from which students desire to attend units of the system, and the areas from

which students would attend if each student went to the nearest university offering his specialization subject to capacity constraints. Project will involve analyses of students' reasons for choice of units and sources of information about units and job research behavior of seniors. Begun, 1971. EDC, 1972. /Brazilian Government.

132. ———

With: Lawrence Brown, Richard Buxbaum, and Trevor Bain

Regional Analysis of a Traditional Economy.

This project previously reported in LARR IV:2 (575) is in the last stages of preparation. The following articles resulting from the study are in various stages of completion: "The Diffusion of Dairying in Aguascalientes, Mexico: A Spatial Analysis of the Modernization of a Developing Economy," with Lawrence Brown; "Demand Functions in a Labor Surplus Economy," with Trevor Bain; "A Geography of Consumption," with Richard Buxbaum; and "Central Place Theory from the Viewpoint of Consumer Demand: Generating Central Places in Developing Economies," with Buxbaum and Richard Mitchell.

133. Laurence A. Lewis

Clark University

Economic Regionalization of Latin America.

A comparison of economic development in Latin America utilizing only data from the individual countries. Begun, 1970.

134. Armin K. Ludwig

Colgate University

Expansion and Intensification of the Urban Hierarchical Network in Goias State, Brazil, 1950 to 1970.

Data is presently undergoing computer analysis. Begun, 1972. EDC, 1972. /Colgate Research Council.

135. Elbert E. Miller
University of Lethbridge (Canada)
The Beef Cattle Industry of the Central American Caribbean Lowlands.

The Caribbean Rainforest is rapidly being cleared and planted to pasture grasses for beef cattle. Previously it was thought that cattle could not be reared in the humid tropics of Central America. This study will investigate factors in the change and the present state of the industry. Begun, 1966. EDC, 1973.

136. C. W. Minkel
Michigan State University
The Minerals Industry of Central America.
EDC, 1973. See LARR VI:2 (320).

137. James J. Parsons
University of California, Berkeley
Settlement History of the Baja Cauca and Sinu Country.
Work is getting underway on Colombian research project. EDC, 1974. A related study, *Antioquia's Corridor to the Sea: The Historical Geography of Urabá*, was published in the Ibero-Americana series, University of California Press, 1969.

138. Bonham C. Richardson
California State College, San Bernardino
A Spatial Analysis of East Indian Livelihood Behavior in Trinidad.
Research tests the hypothesis that contemporary livelihood patterns in rural Trinidad are influenced by the infrastructure originally designed to serve plantations. Field research from June 1971 to September 1971 has been carried out in three East Indian villages on

the island. Interviewing has been directed toward gaining information about the location of labor input on the part of the villagers. Archival research in Port of Spain has supplemented field interviewing. Begun, 1971. EDC, 1972-73. /American Philosophical Society, National Geographical Society, and Sigma Xi.

139. Alfred H. Siemens
University of British Columbia (Canada)
With: Dennis Puleston, University of Minnesota

Ridged Fields and Related Features along the Candelaria River in Campeche, Mexico.

Continues: See LARR VI:3 (453) and IV:3 (1023).

140. James N. Snaden
Central Connecticut State College
Petaquillas: A Study of Selected Aspects of the Agricultural Geography of a Peasant Village in Southern Mexico.

Continuation of project described in LARR VI:1 (88). New EDC, 1972.

141. Robert N. Thomas
Michigan State University
Mobility Characteristics of the Population of Tegucigalpa, Honduras.
Present research is directed toward intra-urban mobility in Tegucigalpa, namely daily work trips and residential changes. Begun, 1970. EDC, 1973. /Michigan State University. A related study, "Migration System of Guatemala City: Spatial Inputs," appeared in the *Professional Geographer*, May 1972.

142. Kempton E. Webb
Columbia University

Latin American Research Review

The Changing Face of Northeast Brazil.
Project described in LARR II:1 (62) and up-dated in III:1 (58) nears completion. To be published by Columbia University Press in 1973. /Ford Foundation, Columbia University.

143. Rolf Wesche
University of Ottawa (Ottawa)
Rural Migration and Agricultural Colonization in the Peruvian Amazon.

Analysis of factors determining migration to the Peruvian montana and socio-economic adaptation to the rain-forest environment toward the elaboration of recommendations of government support required to accelerate migration and enhance successful adaptation of migrants. Begun, 1969. EDC, 1974. To be published by the Peruvian government in 1974-75. /Canada Council.

144. Morton D. Winsberg
Florida State University
Statistical Regionalization of Buenos Aires.

Project takes variables from the 1960 census of population, transgenerates them into logs, reduces them to four major factors through a factor analysis, and then submits them to a grouping procedure (Ward's algorithm) with a contiguity constraint. Begun, 1970. Florida State University.

145. Harold A. Wood
McMaster University (Canada)
With: Vernon Smith, Roy Ryder, Bruce Batchelor, M/M Bruce Ratford, Susanne Wobschall, Elizabeth McGregor, and Paul Fraser
Project will divide Pichincha Province into areas which are homogeneous with

respect to their levels of living, potentials for increase in population and production, and potential spread effects on other areas. These areas will then be suitable for incorporation as spatial units into the regional planning process. Information being obtained in the field covers soils and climate, land use, farm organization, transportation, community development and servicing, marketing, the urban structure of Quito, and air photo interpretation of surface phenomena. Begun, 1969. EDC, 1973. /Canada Council, National Research Council of Canada, and Instituto Geográfico Militar of Ecuador.

MEDICINE

146. Mario Chiappe Costa
Instituto Peruano de Investigaciones Psiquiátrico Sociales

El síndrome cultural de daño en el Perú.

Se trata de investigar las características, etiología y tratamiento curanderil de uno de los síndromes populares más conocido y frecuente de la medicina aborígen en el Perú, cuya influencia gravita sobre las creencias y costumbres de numerosas colectividades peruanas. Iniciado, 1972. FAT, 1972. /Instituto Peruano de Investigaciones Psiquiátrico Sociales.

147. Miodrag Ristic
University of Illinois
With: Antonio Morilla and Miguel Osorno

Immunodiagnosis and Prophylaxis for Bovine Anaplasmosis and Babesiosis.

Project combines both graduate studies of Mexican veterinarians at the University of Illinois and research on the ani-

mal blood diseases, anaplasmosis and babesiosis, which is currently underway at the University of Illinois and at the Center for Animal Disease Investigation, Palo Alto, Mexico. The program is designed to offer post-doctoral training to Mexican veterinarians in broad areas of microbiology with emphasis on pathogenesis and immunology of hemotropic infections. Research goals are development of means for prevention of these diseases. Begun, 1968. EDC, 1973. /Rockefeller Foundation and University of Illinois.

148. Milton I. Roemer

University of California, Los Angeles
Health Services in Cuba: Transition to Socialism.

Analysis of the steps taken in converting Cuban health services from their traditional form pre-1959 to their current post-Revolution model. Research is based on a visit to Cuba in September 1971 and intensive data-gathering from the Ministry of Public Health and its component units. Also much data collected from the World Health Organization and various written sources (including unpublished documents of other medical visitors to Cuba). Particular attention is being given to the ways that the Cuban health service process appears to differ from comparable developments in other Socialist countries. Begun, 1971. EDC, 1972. To be published by the World Health Organization. /WHO.

149. Vera Rubin

Research Institute for the Study of Man
With: Lambros Comitas, Michael Beaubrun, Erick Cruickshank, and staffs
Effects of long-term chronic use of cannabis.

Multi-disciplinary investigation of the effects of long-term chronic use of cannabis in Jamaica. Sixty working-class male subjects (30 users and 30 controls) drawn from several ecologically differentiated areas, based on anthropological community studies, have been extensively examined in medical, psychological, psychiatric, and related clinical studies at the hospital of the University of the West Indies. Begun, 1970. EDC, 1972. /Center for Studies of Narcotic and Drug Abuse, National Institute of Mental Health.

ZOOLOGY

150. Rollin H. Baker

Michigan State University
With: students

Biology of Neotropical Mammals. Field studies (distribution and ecology) and laboratory studies (behavior, systematics, anatomy, life history, chromosomal evolution, serology, physiology, biochemistry, and genetics) are continuing on selected groups of mammals, notably rodents of the genera *Akodon*, *Sigmodon*, *Xenomys*, *Tylomys*, *Ototylomys*, *Proechimys*, and *Oryzomys*; monkeys of the genus *Aotus*; and carnivores of the genus *Mustela*. See additional information in LARR V:2 (419).

151. Howard W. Campbell

University of Florida

Ecology and Systematics of *Anolis lionotus* and *A-poecilopus* (Reptilia:Sauria) in Central and South America.

Several species of the lizard genus *Anolis* have adapted to a semi-aquatic existence. Little is known regarding the ecology of these species or of their systematic re-

Latin American Research Review

relationships. The tropical species are being studied ecologically in Panama and systematically throughout their combined ranges to determine their adaptive responses to this niche and the patterns of distribution and relationships of the various populations. Begun, 1967. EDC, 1973. /Center for Biology of Natural Systems of Washington University. A related work, "Observations on the Thermal Activity of some Tropical Lizards of the Genus *Anolis* (Iguanidae)," appeared in the *Caribbean Journal of Science*, II (1-2), 1971.

152. ———

With: F. Wayne King, Bronx Zoo

Ecological and Systematic status of Morelet's Crocodile, *Crocodylus Moreleti*, in Mexico and Central America.

Morelet's crocodile is limited to Caribbean Mexico, portions of Guatemala, and British Honduras. Throughout its range it has suffered heavy hunting from the hide industry. The current study is an attempt to locate as many remaining populations as possible, to estimate their numbers, and to obtain baseline ecological data on the species so that an evaluation of the ecological requirements for the species can be accomplished. The ecological and systematic relationships between *C. moreleti* and *C. acutis* will also be examined over as broad an area as possible to resolve uncertainties in these areas. Begun, 1969. EDC, 1973. /New York Zoological Society and the American Philosophical Society.

153. ———

Social and Vocal Behavior of Crocodilians.

The social and vocal behavior of croco-

dilians has received little attention in the past. Current studies are directed at elucidating the behavioral interactions between parent individuals and their nest and young, and within the social groups apparently formed by young of similar age classes. The role of chemical and visual, as well as acoustic, cues in the behavioral interactions are of chief interest. Begun, 1967. Study will focus on Mexico, Panama, Florida, and Jamaica. /American Philosophical Society, New York Zoological Society, and the American Museum of Natural History.

154. Lauro González Quintero

I.N.A.H. (Mexico)

El Pleistoceno Superior de la Cuenca de México.

Se han estudiado tres perfiles polínicos cuya interpretación revela la secuencia climática de los últimos 33,000 años. Es notable la ausencia de correlación que existe entre los períodos fríos de la Cuenca de México y aquellos que ocurrieron en Norteamérica durante el mismo tiempo involucrado. Inicialo, 1968. /I.N.A.H.

155. Cornelius B. Philip

California Academy of Sciences

A Review of the Tabanidae (Diptera) of Mexico.

In progress. See LARR VI:3 (440).

156. Elizabeth S. Wing

University of Florida

With: Fred G. Thompson

Utilization of Animal Resources in the Highlands of Peru.

A study of faunal material from the Kotosh site is completed and in press. Project described in LARR VI:1 (34) continues with the study of faunal material from other Andean sites.