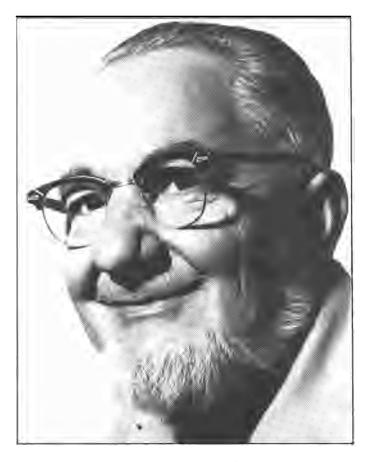
Cicindela

A quarterly journal devoted to Cicindelidae

Volume 28

March/June 1996

Numbers 1-2



Mont A. Cazier

CICINDELA

(ISSN 0590-6334)

Editors: Ronald L. Huber

4637 W. 69th Terrace

Prairie Village, Kansas 66208, U.S.A.

Robert C. Graves

Department of Biological Sciences Bowling Green State University

Bowling Green, Ohio 43403-0212, U.S.A.

Richard Freitag Department of Biology Lakehead University

Thunder Bay, Ontario P7B 5[1] Canada

EDITORIAL POLICY

SUBSCRIPTIONS

The subscription price for each annual volume of four numbers is \$7.00. All subscriptions begin with the first issue of the year and those who subscribe later in the year will receive back issues of that particular volume. Back issues of prior volumes, if still available, will be \$2.50 per issue. All subscription requests should be addressed to the senior editor: Ronald L. Huber, 4637 W. 69th Terrace, Prairie Village, Kansas 66208.

IN MEMORIAM MONT A. CAZIER (1911-1995)

Michael E. Douglas

Department of Zoology, Arizona State University, Tempe, AZ 85287-1501, U.S.A.

Dr. Mont A. Cazier, Professor Emeritus of Zoology at Arizona State University, was born in Cardston, Alberta, on 27 May 1911. He died in his sleep the morning of 29 September 1995 in Tempe, Arizona. He was a respected scientist, and his professional career was divided almost equally between Curator (and Chairman) of Entomology at the American Museum of Natural History (AMNH) in New York City and Professor of Zoology at Arizona State University (ASU). His untimely death came as a total surprise to those who knew him. Although 84 years old and with a Lincolnesque white beard, he appeared to most as a man in his sixties. While his friends marveled at his intellectual and physical robustness, Mont merely accepted these as hereditary effects; they allotted him an extended stay on this planet and accorded him the privilege of being intellectually consumed by science to his last waking moment.

Mont was a recognized expert on the systematics and biodiversity of Coleoptera, Hymenoptera, and Diptera. He produced more than 61 scientific publications during his career in which various aspects of the behavior, ecology, and systematics of these groups were detailed. However, his real renown (and contribution) stemmed from his unparalleled breadth and depth of knowledge on the natural history of the myriad insects, spiders, and scorpions inhabiting southwestern North America. He accrued this knowledge from incessant field work, and his sharp eye and basic intuition continually placed him in favorable vantage points for observing the behaviors of these often reclusive organisms.

Mont grew up as an only child in Ogden, Utah. As a youth, he was a Sea Scout, an Eagle Scout, and a bit of a daredevil. He was

recognized as a star athlete who competed, and set records, in numerous sports (track, cross-country, cross-country skiing, and all-state end in football). However, he was a self-taught ski jumper who learned the rudiments of this sport the hard way. He and friends were ski jumping off the lower third of a jump when they noticed people stopping to watch their progress. Mont couldn't resist performing in front of an audience, a trait he retained to his last day, so he boldly took his next jump from near the top. Much as his caution had been tossed to the wind, so was his equilibrium. When Mont regained consciousness, he was staring up into the face of his uncle who, unbeknownst to Mont, had been one of the roadside spectators.

While happy-go-lucky, Mont was also a hard worker, acutely familiar with a life of application. In this sense, his role model was his mother, who separated from his French-Canadian father early in Mont's life. Although raised by a single parent, Mont grew up surrounded by aunts and uncles in the home of his maternal grandparents. His mother was employed by the utility company, and much of her job required considerable local travel to demonstrate electrical appliances to the public. Today, we accept such situations with the aplomb of individuals living in the latter half of the 20th century, when they are often the norm, and when aid to dependent children is prevalent. But, in Mont's case, the year was 1915 and his mother held the family together by working steadfastly at a man's job in a relatively closed society where women were expected to be dependent, demure, and domestic. Clearly, this woman was anything but. Mont's tenacity and drive, while obviously genetic, must at the very least have been primed by his mother's example. To make ends meet, Mont's grandparents also took boarders into the family home. One such tenant, a scholarly gentleman, gave young Mont a book on insects. The impression it created on the 11 year old was beyond imagination; in later years, Mont attributed this seemingly trivial event as the raison d'altre for his 60 year career in entomology.

Mont's maternal uncle, C. W. Brown, was Professor of Psychology at the University of California. He was a strong masculine figure in Mont's early life. It was Dr. Brown who encouraged young Mont to enroll at this prestigious university. However, Mont's undergraduate life was far from simple. He worked his way through college by doing odd jobs for his uncle and by laboring as a technician in the university's Psychology Department where he managed a large maze through which white laboratory rats were run. The maze was part of an early, government-sponsored project to assay effects of heredity on learning. Rats of known genotype were timed as they ran the maze. After a period of refractiveness, the rats were allowed to run it again. The hypothesis under test was that ability to run the maze increased for some rats as a function of their genetic background. Mont loved this work, for he could study at night while the rats struggled with the maze. Mont was also interested in inheritance of traits, and this project stimulated him intellectually.

During his undergraduate tenure, Mont married his first wife (Catherine): the birth of a daughter (Lvnn) followed soon after. Because he had to work full-time to support his family. Mont wasn't allowed to take a complete course load. This, of course, prolonged the pace of his education. The combined roles of student, technician, father, and husband were difficult in the extreme. Again, we examine these facts through the lenses of our current milieu, where government support in the form of loans and Pell grants is the norm for students, and innumerable "safety nets" are built into the system. However, during the Great Depression era that comprised Mont's undergraduate period, such considerations weren't even dreamed of. The pressures on him to succeed were unrelenting and multifaceted. Mont related one story in which he stayed in the library for two straight days studying for a major exam; when he finally left the library, the strain of his preparation so affected his vision that he had to wear sunglasses and avoid the sun for two days.

Mont completed his undergraduate degree in 1935 and immediately pressed on into California's Ph.D. program in entomology. Here, he finally began to hit his stride. He quickly fixed on a Ph.D. topic under Professor E. 0. Essig and began immediately to collect data. Mont was able to augment his salary during this period by doing consulting work, primarily as a research assistant for more prestigious professors. Most of the work was pesticide-related and very applied. Yet, it held a fascination for Mont in that the situations he was tossed

into cavalierly were always of crisis proportions. He was forced to think on his feet, and he thrived on that kind of pressure. One year, he helped save the California nectarine crop by quickly sampling for and identifying the insect pest, locking onto an appropriate pesticide, and working with the laborers to ensure that the application procedure was followed religiously.

Scientific writing came easily to Mont, and he published his first scholarly paper during his initial year in the Ph.D. program. He continued this remarkable pace unabated, and, by 1941, when he accepted his first professional position as Curator of Entomology at the American Museum of Natural History, he had written 25 publications. Mont always found it interesting that he was able to secure the AMNH position before he had even begun to write his dissertation. He attributed this to the fact that he had impressed curators at the museum with his acumen and work ethic when he visited them during a twomonth Greyhound bus tour of the major eastern North American museums to examine the type material for his tiger beetle research. While some saw his hiring as serendipitous, it was instead luck smiling upon an individual who had already placed himself in a position to succeed. The fact that Mont ventured from California for two months in 1939 on a Greyhound bus to visit distant museums so that he could be certain his own identifications were congruent with historical record, simply set the stage for his eventual hire. Mont wasn't prescient; he had no idea that his trek would pay future dividends. Instead, it was simply the way this man conducted his affairs; it was the figure for an individual who continually applied himself correctly and thoroughly to the task at hand. This was the hard part; the luck took care of itself. Nevertheless, it must have been a very heady experience for a young man, not only to accept such a prestigious position in his first professional capacity, but also simultaneously to become a colleague of such luminaries as George Gaylord Simpson and Ernst Mayr, two initiators of the "Modern Synthesis," in which Darwinian thinking was applied to the fields of palaeontology and systematics, respectively.

In 1943, Mont joined the United States Army Medical Corps and served through World War II. He entered as a lieutenant, trained at the tropical medical complex in New Orleans, Louisiana, and was posted to

India where he worked in the control of disease vectors. He was promoted to captain, then major, and rotated to the China Theater where he was in charge of malaria control. Although a noncombatant, he was awarded the Bronze Star for combat service. As with most young men who served, the war had a major impact on Mont, an impact that was internalized and locked away. The enormous loss of life and the ease at which it occurred were disheartening to him. A particularly strong impression was made on him by fatalistic Chinese laborers who each accepted \$2.00 American from warlords to walk abreast down roads mined by the Japanese. While the resulting explosions cleared the road, they also eradicated life. However, the immediate benefit of an exceptional wage paid to the grieving family more than compensated for the loss of the husband's future earning potential, for that was deemed nil.

Mont was discharged in 1946, and he returned to the AMNH where he quickly became chairman of the Department of Entomology. Although he didn't seek administrative power, his organizational abilities and forthright behavior sold him out. At that time, most administrators suffered from a depression era mentality in which the budget for a department was never exhausted and the resulting end-of-year funds were always turned back. The first thing Mont did after acquiring the chair was to give immediate pay raises to all curators and staff in his department. By the end of the fiscal year, he had exhausted his budget and was boldly asking for more. Since other chairpersons were returning monies, Mont's request for additional funding was honored. He continued this trend for many years before it finally dawned on the other chairpersons that the monies they saved by being overly frugal were being redisbursed to the Entomology Department!

Mont loved the intermontane West. He was particularly enamored by the immensity of the geologic landscape, the ruggedness of the terrain, the great distances, and the isolation of most study areas. It sang a siren song he couldn't withstand. In 1954, he was doing what he loved best, collecting invertebrates in the Chiricahua Mountains of Arizona. While driving down a remote and dusty road with Dr. Willis Gertsch, they happened upon a ranch (i.e., Painted Canyon Ranch) complete with swimming pool. This was indeed a sight. Mont had been ruminating

about the benefits of a biological station in Arizona (located in either the Huachuca or Chiricahua Mountains), and to him the location of the ranch seemed portentous. Once back at the AMNH, Mont began the process of converting his wild idea into a reality. After much effort, he managed to strike a deal with David Rockefeller (an amateur entomologist of some note) by which David would purchase the ranch as an AMNH research station if Mont could obtain enough additional support monies to equip and operate it. The long, arduous (and eventually ulcer-causing) task of soliciting additional benefactors began. It reached fruition in 1955 when the 44 acre Southwestern Research Station (SWRS) opened with Mont as its director. To most, this was Mont's supreme accomplishment, for the station soon became internationally known as a mecca for all aspects of field-oriented biological research in southwestern North America. In just its first year of existence, for example, the SWRS attracted 84 scientists from 23 universities and four major museums. In 1960, Mont relinquished the chair of the Entomology Department and became resident director of SWRS. In this capacity, he applied his extensive knowledge of the flora, fauna, and terrain of the Chiricahuas to accelerate the pace of research projects devised by visiting researchers. In 1962, following a major admininstrative reorientation within AMNH, Mont retired with 20 years of service.

However, one chapter of a life terminates and another must concomitantly begin. Professor Gordon Bender of Arizona State University's Department of Zoology was a frequent visitor to SWRC; Bender knew Mont and was impressed by his scientific acumen and skill in public relations. Bender was due for a sabbatical that year, and he convinced Professor Hugh Hanson, the Zoology chairman, that Mont would be an excellent sabbatical replacement. In spite of the fact that Mont had minimal teaching experience, he was hired. It was a new arena for Mont; new requirements were in effect and a new approach was needed. He dove into it headlong. To tell the truth, it was as though the man was preadapted to teach; he was knowledgable, glib, anecdotal, familiar, and a showman at heart. The students loved him. At that time, the university was just beginning its climb to national prominence, and the match between this knowledgable entomologist and the upstart university was beneficial for all involved. In 1964, this temporary

relationship was cemented when Mont was appointed Professor of Zoology. He taught general entomology, medical entomology, and biogeography; the latter course was especially well received by undergraduates, and it swelled in enrollment semester after semester.

During this time, Mont expanded his research horizons to encompass scorpions. This was done primarily to accommodate interests of graduate students, but, if the truth were told, Mont was also fascinated by the biology of this ancient group. Field trips were frequently conducted into the southern desert to sample these, and other, invertebrates. However, preparations necessary to preserve live scorpions and the fact that they must be kept separate from one another because of their aggressively cannibalistic nature often led to accidents in camp. Mont recounted a story in which he and several graduate students were in a motel room processing (i.e., relaxing and preserving) a batch of freshly collected scorpions. Plastic bags of scorpions (one individual per bag) were scattered across the top of a bed. Mont sat on the edge to do some work, and his weight caused several of the bags to slide toward him. The bags were partially opened, and several of the scorpions managed to escape. Mont got stung in his posterior several times rapidly and in succession. In his words, the students "had to get a spatula to get me off of the ceiling." He then laughed heartily, both at his predicament and at the muffled attempts of the students to keep from guffawing at the learned professor's monologue with God.

Mont's relationship with graduate students was clearly special, and the living room wall of his Tempe home is replete with testimonials and gifts from those who formed lifelong bonds with their mentor. One "award," for example, is a small, bronzed insect net on a pedestal, with a plaque stating "to the best damn bug collector in Arizona." This particular student clearly could have left off the "Arizona"; with regard to collecting, Mont was *nonpareil*. He personally donated more than 70,000 tiger beetles to the collection at the AMNII (this was, in 1948, the largest private collection in existence). By 1976, he had donated in excess of 243,000 insects to the ASU collection. In later years, his collecting was done by surrogate; Mont indicated profitable locations for rare insects and his younger associates did the leg (or net) work.

stating that new people always dressed him in the morning and he was at the mercy of their humor. Mont had apparently acquired a brace of new shirts during the summer of 1995 and was most eager to try them out on the departmental staff during the autumn term. Although he never got this chance, the mere thought of his gleeful anticipation touched many of us with melancholy.

Mont Cazier was passionate about insects, particularly tiger beetles. He saw them as sculpted jewels, amazingly adapted for their particular niches, and carrying a wealth of characteristics and descriptors that awaited the discerning eye of the specialist. He devoted his entire life to that search and was (as is his subject matter) amazingly adapted for his niche. His presence, both as a scientist and a man, will be sorely missed.

Mont is survived by his wife, Carolyn, four daughters, a son, nine grandchildren, and two great-grandchildren.

Cicindelidae described by Mont A. Cazier

Cicindela plutonica leachi Cazier (1936a)

C. parowana platti Cazier (1936b)

C. californica mojavi Cazier (1937b)

C. lunalonga wagneri Cazier (1937b)

C. alleni Cazier (1939a) (Mdg W. Horn 1908)

C. nevadica tubensis Cazier (1939a)

C. haemorrhagica miniscula Cazier (1948)

C. latesignata parkeri Cazier (1948)

C. sinaloae schrammeli Cazier (1954)

C. bradti Cazier (1954)

C. macrocnema kino Cazier (1954)

C. sperata vauriei Cazier (1954)

C. rockefelleri Cazier (1954)

Omus submetallicus niger Cazier (1937a)

Bibliography (Cicindelidae only)

- Cazier, Mont A. 1936a. Notes on Cicindela plutonica Casey with description of a new subspecies. PAN-PACIFIC ENTOMOL. 12: 123-124.
 - . 1936b. Review of the *willistoni*, *fulgida*, *parowana* and *senilis* groups of the genus *Cicindela* (Coleoptera Cicindelidae). *BULL*. *SOUTHERN CALIFORNIA ACAD*, *SCI*. 35: 156-163.
 - . 1937a. A new California *Omus* (Coleoptera-Cicindelidae). *PAN-PACIFIC ENTOMOLOGIST* 13: 94.
 - . 1937. Four new California Coleoptera (Buprestidae, Scarabaeidae and Cicindelidae). PAN-PACIFIC ENTOMOL. 13: 115-118.
- _____. 1939. Two new Western tiger beetles, with notes (Coleoptera-Cicindelidae). BULLETIN BROOKLYN ENTOMOL. SOCIETY 34: 24-28.
 - . 1939. Notes on the genus *Amblycheila* (Coleoptera-Cicindelidae). *PAN-PACIFIC ENTOMOL.* 15: 110.
- _____. 1942. A monographic revision of the genus *Omus* (Coleoptera: Cicindelidae). Ph.D. dissertation, University of California, Berkeley. 434 pp.
 - . 1948. The origin, distribution, and classification of the tiger beetles of Lower California. *AMERICAN MUSEUM NOVITATES* No.1382: 1-28.
- _____. 1954. A review of the Mexican tiger beetles of the genus Cicindela (Coleoptera, Cicindelidae). BULL. AMERICAN MUSEUM OF NATURAL HISTORY 103 (3): 227-310.
 - . 1960. Notes on Mexican tiger beetles belonging to the genus *Cicindela* (Coleoptera, Cicindelidae). *AMERICAN MUSEUM NOVITATES* No.2025: 1-12.

REDISCOVERY OF POMETON SINGULARIS FLEUTIAUX (COLEOPTERA: CICINDELIDAE) AND NOTES ON ITS NATURAL HISTORY IN SOUTHEASTERN BOLIVIA

David L. Pearson¹, David W. Brzoska², and J. Fernando Guerra³

ABSTRACT. The tiger beetle species, *Pometon singularis* Fleutiaux, is reported for the first time from Bolivia (Department of Santa Cruz) and for the first time since its original discovery in Brazil in the 1890's. The habitat and basic natural history observations for the Bolivian population are described. Comparisons in morphology are made between the type specimens from Brazil and the Bolivian population, and several distinctive differences are noted in the color of the elytra, legs and abdomen.

RESUMEN. Se registra el escarabajo Ogre, *Pometon singularis* Fleutiaux, por primera vez en Bolivia (Departamento de Santa Cruz) y por primera vez desde su descubrimiento en Russil en los 1800% Se describe el habitat y las observaciones de la historia natural básica de la población boliviana. Se hacen unas comparaciones de morfología entre las muestras tipos hrusileñas y las población boliviana, y se anotan algunas diferencias distintas en el color de los elitros, las patas y el abdomen.

INTRODUCTION

Late in the last century Fleutiaux (1899a) described a new genus of tiger beetle from the State of Coias, near Jatahy in east-central Brazil. He initially described this new species as *Metopon sin gularis*, but later (Fleutiaux 1899b) changed the genus to *Pometon* because the name *Metopon* was preoccupied by a genus of Hymenoptera (Walker 1834).

Fleutiaux was uncertain of the relationship of this new genus because of its unique characters. The vertex of the head is convex with no hint of a hollow between the eyes. Its eyes are small and not prominent relative to the head size; the head is long in back of the eyes. Because its general body shape is peculiarly elongated, Fleutiaux hypothesized its phylogenetic position to be near the Nearctic

Department of Zoology, Arizona State University Tempe, Arizona \$5287-1501, U.S.A.

²⁸²⁶ Iowa Street, Lawrence, Kansas 66044, U.S.A.

Insulum de Ecologia, Universidad Mayor de San Audres, Casilla 10077, La Paz, Bolivia