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POPULATION OUTBREAK OF PANDORA MOTHS
(*COLORADIA PANDORA* BLAKE) ON THE KAIBAB PLATEAU,
ARIZONA (SATURNIIDAE)

The pandora moth (*Coloradia pandora* Blake) is fairly widespread in the pine forests of the Rocky Mountains, and occasionally exhibits large population outbreaks as noted by Ferguson (1971. *Moths of America North of Mexico*, Fascicle 20.2A, E. W. Classey, Ltd., London). Such an impressive outbreak was noted on a visit to the Kaibab Plateau of northern Arizona in August 1982. During a field trip to the plateau, thousands of adult pandora moths were observed flying about or landed upon tree trunks in yellow pine (*Pinus ponderosa*) forest in the daytime hours. While driving a north-south transect the full length of the Kaibab Plateau on 15 August 1982, the greatest concentrations of pandora moths were noted within a two-three mile zone surrounding the Jacob Lake Junction, on State Highway 89 (Alt.) and Highway 67. Hundreds of adult moths (many freshly emerged) and thousands of eggs were noted on the buildings and tree trunks at Jacob Lake, especially near outside lights that were kept on at night.

Adult males and females were active in large numbers nocturnally as well as diurnally, because "black lighting" at night produced heavy catches near the North Rim of the Grand Canyon on 16 August. Wygant (1941. *Jour. Econ. Entomol.* 34(5):697-702) noted in Colorado that the peak emergence of adults was in July, every-other-year, because of a two-year life cycle, and the primary food plant was lodgepole pine (*Pinus contorta*). In another area, Oregon, yellow pine was reported to be the principal food plant of the pandora moth by Packard (1914. *Mem. Nat'l. Acad. Sci.* 12:1-276). Since the yellow pine predominates on the Kaibab where pandora moths were observed to be most abundant in August 1982, this pine is probably the most important food plant there.

Several hundred eggs were oviposited by freshly collected females placed in glassine envelopes. The ova were glossy blue-green spheres which hatched in early September three to four weeks after oviposition. This fits with Ferguson's notation that the young larvae overwinter, mostly in the second instar, on the pine branches at the base of needles. Attempts to rear the larvae on *Pinus palustris* (which was available to the author) failed.

Adult pandora moths are clearly strong flyers, since one was observed flying across a barren desert landscape some 45 miles west of the edge of the Kaibab Plateau and the nearest pine trees. Undoubtedly, during large population outbreaks, some individuals wander great distances in search of suitable food plants to oviposit upon.

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TWO LARGE COLLECTIONS OF MACROLEPIDOPTERA
TO THE MILWAUKEE PUBLIC MUSEUM

The Milwaukee Public Museum in recent years has received two major Lepidoptera collections, the William E. Sieker Collection of Sphingidae and the James R. Neidhoefer Collection of Macrolepidoptera of several families.

A donation from the wife of the late Mr. Sieker and daughter Marie, the Sieker Collection was acquired by the Milwaukee Public Museum in September 1982. Amassed



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