

## Walter B. Miller (1918–2000): Molluscan Taxa and Bibliography

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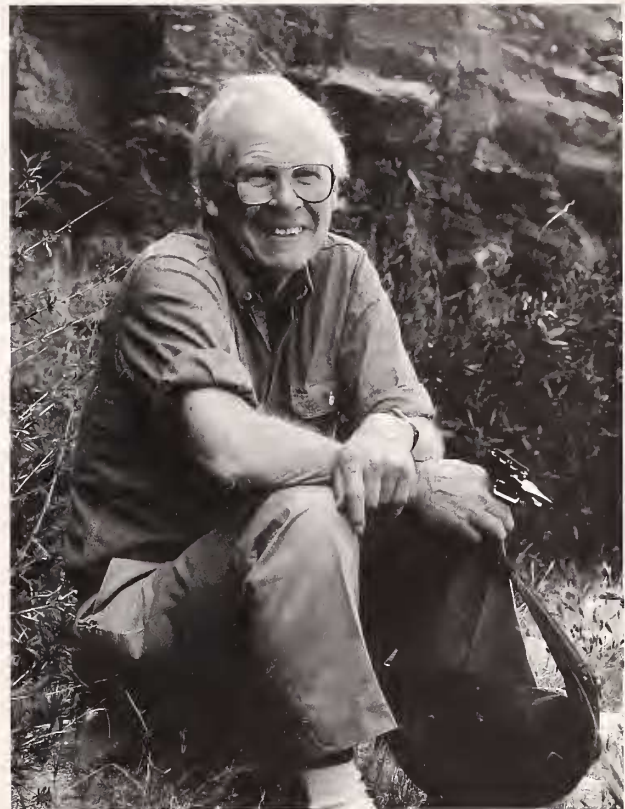
Walter Bernard Miller, Professor Emeritus of Biology at the University of Arizona and Research Associate of the Department of Invertebrate Zoology, Santa Barbara Museum of Natural History, passed away on July 10, 2000, at his home in Lompoc, California.

Miller was born in Paris, France, on August 23, 1918, three weeks after his father, an American aviator in the Lafayette Escadrille, had been shot down and killed during the battle of Chateau-Thierry. His mother, a French woman, brought him to the United States in 1929. He lived in South Carolina and attended The Citadel and the United States Naval Academy, graduating from the latter in 1949. During World War II, he piloted dive bombers in numerous combat missions in North Africa and the Pacific. On orders from the Navy, in 1945 he obtained a Master's degree in aeronautical engineering from the California Institute of Technology.

After retiring from naval service, Miller worked in civilian technology for four years before choosing to follow his avocation as a naturalist and entering the University of Arizona, where he obtained a Ph.D. in biology in 1967. His doctoral dissertation, *Anatomical revision of the genus *Sonorella* (Pulmonata: Helminthoglyptidae)*, established his expertise in the preparation and study of land snail reproductive systems, a specialty he would pursue until the end of his career. The results of his collecting (but, unfortunately, not his anatomic findings) were published in *The Mollusks of the Arid Southwest, with an Arizona Check List* (1973), co-authored with Joseph Charles Bequaert.

Following a postdoctoral year at the University of California's Bodega Marine Laboratory, he was hired by the University of Arizona as Assistant Professor of General Biology. Promoted to Associate Professor in 1972 and Professor in 1977, he oversaw the work of numerous graduate students. Doctoral study under Walt Miller invariably included field work in the American Southwest, where, under sometimes arduous conditions, his students collected specimens to be reared in the lab, dissected, and analyzed. Insistence on involvement with one's material "from the ground up" was characteristic of his method, and he would rarely describe a new species that he had not personally collected, even if ample material already existed in museum collections.

Required by the university to retire at age 70, in 1988 Miller moved to California with his wife, Betty Sue. Set-



Walter Bernard Miller, Santa Catalina Mountains, Arizona, April 1987. Photograph by Lance H. Gilbertson.

ting first in Santa Barbara, they later built their dream home in Lompoc. As a Research Associate of the Santa Barbara Museum of Natural History, he continued field work and publication on western North American pulmonate land mollusks. There his primary focus changed from Helminthoglyptidae to Polygyridae, and he began the task of documenting previously unsuspected diversity in species of *Vespericola* in the Pacific Northwest. His extensive personal collection of land snails and anatomical preparations was donated to the museum in 1991.

It was typical of Miller's generous spirit that he often named new taxa for his co-authors and students. Colleagues have returned the compliment with these taxon names: *Sonorella milleri* Christensen, 1981; *Millerelix* Pratt, 1981; *Xerarionta waltmilleri* Roth, 1984; *Helminthoglypta milleri* Reeder, 1986.

## Publications and Taxa of Walter B. Miller

1965

MILLER, W. B. Preliminary observations on *Sonorella* in Arizona and Mexico. American Malacological Union Annual Reports for 1965:50-51 (abstract).

1966

CLENCH, W. J. & W. B. MILLER. A new species of *Ashmunella* from west Texas (Mollusca: Pulmonata). Breviora, Museum of Comparative Zoology 244:1-6.  
*Ashmunella bequaerti*, n. sp.

MILLER, W. B. Three new *Sonorella* from southwest Arizona. The Nautilus 80(2):46-52, pls. 1, 2.

*Sonorella baboquivariensis cossi*, n. subsp.

*Sonorella meadi*, n. sp.

*Sonorella simmonsii*, n. sp.

1967

MILLER, W. B. Anatomical revision of the Genus *Sonorella* (Pulmonata: Helminthoglyptidae). Ph.D. Dissertation, Department of Biological Sciences, University of Arizona, Tucson. 293 pp.

MILLER, W. B. Two new *Sonorella* from Sonora, Mexico. The Nautilus 80(4):114-119, 121-122.

*Sonorella greggi*, n. sp.

*Sonorella nixonii*, n. sp.

MILLER, W. B. Two new *Sonorella* from Sonora, Mexico, and notes on southern limit of genus. The Nautilus 81(1):1-6, 9.

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*Sonorella perhirsuta*, n. sp.

MILLER, W. B. Two new *Sonorella* from the Rincon Mountains of Arizona. The Nautilus 81(1):9; (2):54-61.

*Sonorella bagnarai*, n. sp.

*Sonorella bequaerti*, n. sp.

1968

MILLER, W. B. New *Sonorella* from Arizona. The Nautilus 82(2):50-52; 59-63.

*Sonorella coloradoensis mohaveana*, n. subsp.

*Sonorella waltonii*, n. sp.

1969

GREGG, W. O. & W. B. MILLER. A new *Sonorella* from Phoenix, Arizona. The Nautilus 82(3):90-93.

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*Sonorella superstitionis taylori*, n. subsp.

1970

MILLER, W. B. A new species of *Helminthoglypta* from the Mojave Desert. The Veliger 12(3):275-278, pl. 41.

*Helminthoglypta micrometalleoides*, n. sp.

1971

MILLER, W. B. The reproductive anatomy of *Tryonigens remondi* (Tryon, 1863): Helminthoglyptidae. The Nautilus 85(2):61-65.

1972

MILLER, W. B. *Greggelix*, a new genus of autochthonous land snails (Helminthoglyptidae) from Baja California. The Nautilus 85(4):128-135.

*Greggelix*, n. gen.

MILLER, W. B. The anatomy of *Speleodiscoides spirellum* A. G. Smith, 1957. Occasional Papers of the California Academy of Sciences 97:1-9.

1973

BEQUAERT, J. C. & W. B. MILLER. The Mollusks of the Arid Southwest, with an Arizona Check List. University of Arizona Press: Tucson. xvi + 271 pp.

MILLER, W. B. A Recent *Oreohelix* (Gastropoda: Pulmonata) from Baja California Sur, Mexico. The Veliger 15(4):332-334, 1 pl.

*Oreohelix (Radiocentrum) exorbitans*, n. sp.

MILLER, W. B. Ecology and distribution of Helminthoglyptidae (Pulmonata) in Baja California. The Echo (Western Society of Malacologists) 5:37 (abstract).

MILLER, W. B. Saltational speciation in American Helminthoglyptidae (Gastropoda: Pulmonata). American Malacological Union Bulletin for 1973 [Bulletin 38]:44 (abstract).

MILLER, W. B., R. S. NISHIOKA & H. A. BERN. The "juxtagan-gliconic" tissue and the brain of the abalone *Haliotis rufescens* Swainson. The Veliger 16(2):125-129.

1974

BABRAKZAI, N. & W. B. MILLER. A colchicine hypotonic squash technique for chromosome spreads of pulmonate land snails. Malacological Review 7(1):37-38.

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GREGG, W. O. & W. B. MILLER. Two new species of land snails from the Pinaleno Mountains, Arizona. Bulletin of the Southern California Academy of Sciences 73(3):146-151.

*Sonorella imitator*, n. sp.

*Oreohelix grahamensis*, n. sp.

REEDER, R. L. & W. B. MILLER. Cytotaxonomy of some Arizona *Ashmunella* (Gastropoda: Pulmonata). American Zoologist 14(4):155 (abstract).

1975

BABRAKZAI, N. & W. B. MILLER. Chromosome number of *Praticolella berlandieriana* (Moricand, 1833). Journal of the Arizona Academy of Science 10(3):126-127.

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BABRAKZAI, N., R. L. REEDER, & W. B. MILLER. Chromosomal aberrations in southwestern pulmonate gastropods. Journal of the Arizona Academy of Science 10 (1975 Proceedings Supplement):30 (abstract).

CHRISTENSEN, C. C. & W. B. MILLER. Genital anatomy and phylogeny of the snails, *Berentia* Crosse and Fischer and *Spartocentrum* Dall (Stylommatophora: Bulimulidae). The Nautilus 89(2):43-46.

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1976

BABRAKZAI, N. & W. B. MILLER. Karyotypic comparison between Helminthoglyptidae and Bradybaenidae (Gastropoda: Pulmonata). Bulletin of the American Malacological Union, Inc. for 1975:72.

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- CHRISTENSEN, C. C. & W. B. MILLER. The Baja California *Bulimulus* of Jules Mabille. Western Society of Malacologists Annual Report 9:51 (abstract).
- CHRISTENSEN, C. C. & W. B. MILLER. A new *Radiocentrum* (Pulmonata: Oreohelicidae) from Baja California, Mexico. The Veliger 18(4):378–380, 1 pl.  
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*Helminthoglypta waltoni*, n. sp.
- MILLER, W. B. New species of *Sonorella* (Pulmonata: Helminthoglyptidae) from New Mexico and Texas. The Nautilus 90(2):70–73.  
*Sonorella metcalfi*, n. sp.  
*Sonorella todseni*, n. sp.
- REEDER, R. L. & W. B. MILLER. Karyotype studies in *Ashmunella* (Pulmonata: Polygyridae). Bulletin of the American Malacological Union, Inc. for 1975:71 (abstract).
- 1977
- CHRISTENSEN, C. C. & W. B. MILLER. Two new *Rabdotus* (Pulmonata: Bulimulidae) from Baja California, Mexico. The Nautilus 91(4):130–133.  
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*Rabdotus gigantensis*, n. sp.
- 1980
- MILLER, W. B. & C. C. CHRISTENSEN. A new *Strobilops* (Mollusca: Pulmonata: Strobilopsidae) from Baja California Sur, Mexico. Proceedings of the Biological Society of Washington 93(3):593–596.  
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- 1981
- MILLER, W. B. *Helminthoglypta reederi* spec. nov. (Gastropoda: Pulmonata: Helminthoglyptidae), from Baja California, Mexico. The Veliger 24(1):46–48, 1 pl.  
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*Eremarionta greggi*, n. sp.
- MILLER, W. B. A new *Greggelix* (Mollusca: Pulmonata: Helminthoglyptidae) from Baja California Sur, Mexico. Proceedings of the Biological Society of Washington 94(3):731–738.  
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- 1982
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*Martirelix*, n. subgen.
- Greggelix (Martirelix) babrakzaii*, n. sp.
- 1983
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- FAIRBANKS, H. L. & W. B. MILLER. Inbreeding and genetic variation in two species of *Ashmunella* (Gastropoda: Pulmonata: Polygyridae) from the Huachuca Mountains, Arizona. American Malacological Bulletin 1:21–25.
- MILLER, W. B. *Ashmunella angulata* Pilsbry, 1905, *Ashmunella esuritor* Pilsbry, 1905, *Ashmunella lenticula* Gregg, 1953, *Ashmunella lepiderna* Pilsbry and Ferriss, 1910 and *Ashmunella varicifera* (Ancey, 1901) re-established as valid species. The Veliger 25(3):266.
- 1984
- BABRAKZAI, N. & W. B. MILLER. Cytogenetic study of interspecific hybrids of *Ashmunella* (Mollusca: Pulmonata: Polygyridae), I. *A. proxima* × *A. lenticula* F<sub>1</sub> hybrids. Malacologia 25(2):413–426.
- BABRAKZAI, N. & W. B. MILLER. Preliminary studies on the karyotypes of Bradybaenidae (Gastropoda: Pulmonata). American Malacological Bulletin 2:97 (abstract).
- DEISLER, J. E. & W. B. MILLER. Preliminary observations on the *Helminthoglypta traskii* group of southern California (Gastropoda: Pulmonata). Journal of the Arizona-Nevada Academy of Science 19 (Supplement):16–17 (abstract).
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- HOCHBERG, F. G., B. ROTH & W. B. MILLER. *Radiocentrum avalonense* is alive and well(?) on Catalina Island. Western Society of Malacologists Annual Report 16:22 (abstract).
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*Sonorella reederi*, n. sp.  
*Sonorella russelli*, n. sp.
- MILLER, W. B. & R. L. REEDER. A new species of *Rabdotus* (Gastropoda: Pulmonata: Bulimulidae) from Arizona. Bulletin of the Southern California Academy of Sciences 83(2):106–109.  
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- 1985
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- 1986
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- Sonorella aguafriensis*, n. sp.
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- REEDER, R. L. & W. B. MILLER. A new species of *Helminthoglypta* (Gastropoda: Pulmonata: Helminthoglyptidae) from San Diego County, California. *Proceedings of the Biological Society of Washington* 99(1):137–139.
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- REEDER, R. L. & W. B. MILLER. A new *Helminthoglypta* (*Rothelix*) (Gastropoda: Pulmonata: Helminthoglyptidae) from southern California with comments on its probable evolutionary relationships. *Southwestern Naturalist* 32(2):261–265.
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- 1990
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- Greggelix* (*Martirelix*) *huertai* Miller & Roth, n. sp.
- 1991
- MILLER, W. B. & E. NARANJO-GARCÍA. Familial relationships and biogeography of the western American and Caribbean Helicoidea (Mollusca: Gastropoda: Pulmonata). *American Malacological Bulletin* 8(2):147–153.
- 1992
- ROTH, B. & W. B. MILLER. A new genus and species of polygyrid land snail (Gastropoda: Pulmonata) from Oregon. *The Veliger* 35(3):222–225.
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- 1993
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- 1998
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- Vespericola embertoni*, n. sp.
- Vespericola rhodophila*, n. sp.