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Status: TAES San Antonio
Phone: 830-214-5878
E-mail: mrbandel@ag.tamu.edu

Name: Bandel, Micaela

TAES San Antonio

2632 Broadway, Suite 301 South
San Antonio, TX 78215

*Sphaerium transversum* is characteristic of perennial water bodies, unlike other species of the subgenus *Musculium*. Herrington (op. cit.) listed its habitat as “large lakes, rivers, and sloughs,” while Heard (Malacologia, 1: 139–160, 1962) found it in Michigan only in streams. Hence if we believe that the past spread of this clam has been through the habitats in which it now lives, then the separate, often widely scattered localities have been interconnected by various stream systems. Here it is worth pointing out that in Michigan (probably the state whose freshwater mollusks are best known as to distribution as well as classification) Heard (op. cit.) found that the discontinuous range of *S. transversum* reflects late Pleistocene paleogeography, not modern drainages. In spite of the numerous aquatic habitats of that State, the species is found only in three local areas correlated with former river systems draining the glacial Great Lakes.

In the arid southwestern United States and northern México, suitable habitats for *S. transversum* are rare and are rapidly disappearing. Potrero Creek formerly was permanent as two species of fishes, the longfin dace (*Agosia chrysogaster*) and Gila topminnow (*Poeciliopsis occidentalis*) formerly occurred there (specimens at the University of Michigan). It was dry except for minor impoundments near its head and along the channel when observed by W. L. Minkley (pers. comm.) in summers 1964 and 1965. The history of Pleistocene or Pliocene stream drainages is scarcely known, and freshwater mollusks have been sought only sporadically in the area. Thus the few spots in this region where the species is known are so widely spaced that they warrant no specific inferences about past times and places of stream or lake connections at this time.

The specimens from Arizona reported herein were collected while on a trip supported by National Science Foundation grant GB-154 to Gerald A. Cole, Arizona State University, Tempe. I thank W. L. Minkley, Arizona State University, for aid in obtaining plant identifications, and for discussion of fish distribution and the local habitat.—Dwight W. Taylor, Department of Zoology, Arizona State University, Tempe, Arizona 85281.


**THE DECLINE AND THREATENED EXTINCTION OF TEXAS WILD RICE (*ZIZANIA TEXANA* Hitchc.).—*Zizania texana* Hitchc. is a large, perennial, aquatic grass, endemic to Spring Lake and the upper portion of the spring fed San Marcos River. Adapted to shallow, clear, swift flowing, constant temperature water, this grass has an extremely limited habitat. Modification of that habitat by the activities of man now threaten to hasten the extinction of this species.

At the time of its description in 1933 the grass grew abundantly in the upper two miles of the river, in irrigation ditches and for approximately 1000 feet behind the
dam which impounds Spring Lake. (Silveus, W. A., 1933, Texas Grasses.) The current
distribution of this grass reveals a substantial reduction in its area of dominance
and its population size.

There is but one plant of Z. texana in Spring Lake. The plant clings tenaciously
to the channel bank directly behind the sluiceway to the dam. In the first half mile
of river below the dam there are no plants of Texas Wild Rice. Beyond this point
for approximately one and one-half miles there are scattered clones after which no
further evidence of Z. texana occurs.

Several factors appear responsible for the declining number of wild rice plants
and their diminishing area of distribution. It seems probable that floating debris,
bottom plowing, plant collection and pollution may be contributing factors in the
decline of Texas Wild Rice.

To keep the lake from being clogged by vegetation and to render it more attractive
to tourists, the upper six to eight feet of vegetation is regularly cut by an under­
water mowing machine. Over a period of days following each cutting, masses of
floating debris move into the current and are swept downstream. This debris travels
primarily in the swift moving currents of the river, passing over the areas occupied
by Z. texana. Any attempt by the grass to exsert an inflorescence from the water
and effect pollination is prevented. The pistilate flowers drop off and the inflorescence
fails to set seed.

As mentioned previously, no specimens of the grass were observed in the first half
mile of the river below the Spring Lake Dam. This portion of the river passes
through the city and in an attempt to rid the river of clogging vegetation, workers
periodically plow or harrow the river bottom. Thus establishment of the perennial
wild rice is effectively prevented from occurring in this highly favorable habitat.

A third factor involved is the intensive activity of plant collectors on Spring Lake
and the upper San Marcos River. Two commercial enterprises specializing in the
collection and sale of aquatic plants for home aquaria operate in the San Marcos
area. Workers of these firms regularly pull out the economically unimportant plants
and replace them with sprigs of salable species. Such activities disturb the bottom,
increase the turbidity of the water, physically dislodge the economically unim­
portant perennials and essentially convert the lake and upper river into an under­
water truck garden.

A final factor of undetermined influence on the wild rice is the accidental dis­
charge of untreated sewerage into the river. Several instances of such discharge have
been noted, particularly during the past two years, when heavy loads of raw sewer­
age have exceeded the handling capacity of the city system.

Currently Zizania texana reproduces itself primarily by vegetative means. The long,
decumbent, geniculate culms rooting at their nodes to produce new clumps.
This method, however, appears unable to increase or even maintain the population of
Z. texana, and unless the trend can be reversed this species will become extinct.—
Wm. H. P. Emery, Department of Biology, Southwest Texas State College, San
Marcos, Texas 78666.

NEW RECORDS OF CRYPTOTIS MAYENSIS FROM THE YUCATAN PEN­
INSULA, MEXICO.—The Yucatán small-eared shrew, Cryptotis mayensis (Mer­
riam, 1901), has been reported only from the type locality, Chichen-Itzá, and from
remains found in cave deposits in the southern part of the state of Yucatán (Hatt,
shrew that are discussed below are, therefore, of interest.

In 1961, a mummified shrew, together with remains of Cryptotis, were found inside Mayan ru­
ins of Cryptotis, were found inside Mayan ruin Angulo. These specimens extend the known ge­
orological range of the species 100 km westward on the Yucatán Peninsula from Uxmal to
and deposits under catalogue numbers 410 and 411 in the Mesoamerican collections of the
Biológicas, Departamento de Prehistoria, I. G. de Paleozoología, Departamento Prehistoria, I.

In May of 1964, the junior author trapped a specimen 2 km SE Laguna Chickankamaab, Quintana
Roo, and deposited under number 1240 in the mammal collection of the Museo de la
Biología, Universidad Nacional Autónoma de México. This specimen extends the known range of the spe­
cies from the type locality, Chichen-Itzá, to Quintana Roo and provides the first record from Quita­

The specimen from Quintana Roo agrees with the original description of the species in all mea­
sures. Cranial measurements, followed by those of external measurements of the speci­
men found at Uxmal, are: cranial length, 20.7, 19.7; interorbital constriction, 4.2, 4.3; breadth of laryn­
gary toothrow, 6.8, 7.2; breadth across second upper molar toothrow, 6.8, 7.2; breadth across second up­
length of the mandibular toothrow of 10 isolated

—Tiec Alvarez, Departamento de Zoología, Esc­
as, and Antonio Martínez G., Departamento de Medicina, Facultad de Medicina, UNAM.