

NEW RECORDS FOR *XYLOSANDRUS* AND *XYLEBORUS* SPECIES
(COLEOPTERA: SCOLYTIDAE)

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Abstract.—*Xyleborus validus* Eichhoff, *X. tachygraphus* Zimmermann, and *Xylosandrus crassiusculus* (Motschulsky) are reported from Louisiana for the first time, and the latter two species are new state records for Arkansas and Florida, respectively. *Xyleborus planicollis* Zimmermann is also a new state record for Arkansas. Additional locality and host records are given for *Xylosandrus compactus* (Eichhoff), *X. germanus* (Blandford), *Xyleborus obliquus* (LeConte), and *X. lecontei* (Hopkins).

Four introduced scolytids have been collected in Louisiana in recent years including *Xyleborus validus* Eichhoff and *Xylosandrus crassiusculus* (Motschulsky), which are reported from the state for the first time. A new Florida state record is given for the latter species. The first records of *Xyleborus planicollis* Zimmermann and *X. tachygraphus* Zimmermann in Arkansas and for the latter species in Louisiana are also given. Additional locality and host records are reported for *Xylosandrus compactus* (Eichhoff), *X. germanus* (Blandford), *Xyleborus obliquus* (LeConte), and *X. lecontei* (Hopkins).

The black twig borer, *X. compactus*, is probably of southeast Asian origin according to Wood (1977). He (1977, 1982) reported its occurrence in Florida in 1941, in Mississippi in 1968, and in Georgia, possibly in 1975. In Louisiana, this species was first collected in twigs of *Magnolia grandiflora* L. in New Orleans on May 6, 1976 (Cancienne, 1976a) and later that year from Jefferson and St. Tammany Parishes (Cancienne, 1976b). Oliver (1978) reported infestations in two additional parishes and reviewed its life cycle and economic importance. In addition to the ones from New Orleans, specimens were examined from the following five parishes: Ascension, Prairieville, 13-X-1977; Beauregard, 5 mi. S DeRidder, March 25, 1982 (EGR); East Baton Rouge, Baton Rouge (21-XI-1977; Place DuPlantier Apts., 13-III-1984, flight trap; 17-IV-1984, em. from *Koelreuteria paniculata* [male]); Point Coupee, 10-V-1978, boring in pecan trunk (male); and St. Tammany, Pearl River, 29-VII-1976; four of these records are from *M. grandiflora*. In 1976, this species was also reported for the first time in Mobile and three other counties in Alabama (McQueen, 1976) and in North Charleston, South Carolina, and later from other localities in the latter state (Hardee et al., 1980). Dixon and Woodruff (1982) discussed its distribution, hosts, and biology in Florida.

Xylosandrus germanus, described from Japan, was first reported from the United States in 1932; it presently occurs from Connecticut south to Georgia and west to Missouri and Louisiana (Bright, 1968; Weber and McPherson, 1982a; Wood, 1977, 1982). This species was first collected in the state on May 10, 1978, when adults emerged from a pecan tree trunk in a small orchard at Morganza in Pointe Coupee Parish (Chapin, 1978). Specimens were also collected in Baton Rouge, East Baton Rouge Parish, on May 2, 1982, emerging from the trunk of a satsuma var. Kimbrough. This is a new host and locality record (Weber and McPherson, 1982a, 1983). Other specimens were collected at Place Duplantier Apartments in Baton Rouge on March 15 and 24, 1984 and on March 10 and 14 and April 27, 1985. Most of them were caught in a window trap (EGR).

An earlier record of the occurrence of *X. germanus* in Indiana was apparently overlooked by Weber and McPherson (1982a, 1982b, 1983). It was reported for the first time from river birch in Dubois County in 1964 (USDA, 1964).

Anderson (1974) reported the first United States record for *Xyleborus semio-pacus* Eichhoff based on specimens taken from a sweetgum graft at Summerville, in Dorchester County, South Carolina. In 1975, he pointed out that the scientific name should be *X. crassiusculus* (Motschulsky) according to Wood (1969). Wood (1977, 1982) placed the species in *Xylosandrus* and gave the probable area of origin as southeast Asia. This species was also reported on plum in Richmond County, North Carolina (Hunt, 1979), and from sweetpotato in Marion County (Kissam, 1979) and cherry in Charleston County (Wood, 1982). Specimens were collected from the trunk and main limbs of a Japanese persimmon tree, *Diospyros chinensis* Blume, in Baton Rouge on May 24, 1980, by L. D. Newsom.

Adults were collected from March 9 to July 25, in September, and on December 21 in the following 9 parishes: Caddo, Gilliam; Catahoula, Sicily Island Hills Wildlife Management Area; East Baton Rouge, Baton Rouge (em. from trunk of satsuma tree, var. Kimbrough; em. from *Koelreuteria paniculata*; LSU campus; Place Duplantier Apartments [LSUC; EGR]); East Feliciana (Camp Avondale, 3 mi. E Clinton; Idlewild Research Station, Clinton [LSUC, EGR]); Livingston, Watson, dug from peach tree branch; Natchitoches (Kisatchie National Forest nr. Red Bluff Campgrd.; Red Bluff Campgrd.; Red Dirt Wildlife Management Area; Little Bayou Pierre at LA Hwy. 118); Plaquemines, Citrus Research Station, Port Sulphur, boring in peach tree; St. Landry, nr. Opelousas, Louisiana Nursery, *Magnolia soulangeana*; and West Feliciana (2 mi. W. Jackson, Vaughns Bayou [EGR]; Tunica Hills W of Weyanoke). Specimens were collected at lights, black light, mercury vapor and black lights, flight traps, window traps, and occasionally by sweeping.

The first record of this species in Florida is based on a specimen collected in Torreya State Park in Liberty County on April 11, 1983 by E. G. Riley.

Xyleborus validus, which occurs in northern Japan, became established in New York about 1975 and was reported from Pennsylvania in 1980 (Wood, 1977, 1982). In Louisiana, the first specimens were collected in the Thistlethwaite Wildlife Management Area in St. Landry Parish on June 1, 1984, emerging from *Acer negundo* L. Other records include three additional parishes: East Baton Rouge, Baton Rouge (LSU campus, 8-III-1985, mercury vapor and black light; 15-IV-1985, in *Wisteria* sp.; Place Duplantier Apartments [IV-29-83, March 13, 22, 24,

April 23, and July 21, 1984, window trap; 14-III-1985 (EGR)]; Orleans, New Orleans (3-VI-1985; City Park, 9-VII-1985; both emerged from *Koelreuteria paniculata* Laxmann); and West Baton Rouge, Hwy 415 at I-10, 17-IV-1985.

Additional records, which extend the range or provide more detailed locality data, are given below for four other *Xyleborus* species.

Xyleborus obliquus (LeConte) was reported from New Iberia by Bright (1968). Louisiana was omitted from the distribution records in Wood (1982), and this locality was mistakenly included in the Virginia list. Specimens were collected in Baton Rouge from March 15 to April 19, on August 31 and on December 21, and at Idlewild Research Station near Clinton in East Feliciana Parish in April (EGR, LSUC).

Xyleborus lecontei (Hopkins) was reported from the "Delta area" by Wood (1982). Two specimens emerged from dead limbs collected March 11, 1982, by E. G. Riley on Grand Chenier in Cameron Parish. One of these emerged from *Acacia farnesiana* (L.) Wild. (Fabaceae: Mimosoideae).

The following two specimens of *Xyleborus tachygraphus* Zimmermann were examined: Arkansas, Montgomery Co., R.27W., T.4S., Sec. 32, 2-IV-1980, C. B. Barr (LSUC); Louisiana, East Baton Rouge Parish, Baton Rouge, Place Duplantier Apts., 16-III-1983 (EGR). These represent new state records and extend the range of this species westward from Illinois and Alabama (Wood, 1982).

A specimen of *X. planicollis* Zimmermann, bearing the following label data, was collected for the first time in Arkansas: Polk County, S of Board Camp R29W, T3S, SE Sec. 22; 2-4-IX-1984; MV & BL, Coll. C. B. & J. E. Barr. This species was reported from Missouri, Indiana, and Pennsylvania by Wood (1982).

Specimens of *X. affinis* Eichhoff, *X. celsus* Eichhoff, *X. ferrugineus* (F.), and *X. pubescens* Zimmermann from Louisiana were also examined, and *X. xylographus* (Say) may occur in the state.

ACKNOWLEDGMENTS

The authors express their thanks to D. M. Anderson, Systematic Entomology Laboratory, USDA, and D. E. Bright, Biosystematics Research Institute, Agriculture Canada, for the identification of specimens; to E. G. Riley for permission to examine specimens in his collection (EGR); and C. B. Barr, E. A. Cancienne, R. A. Goyer, L. D. Newsom, D. K. Pollet, D. A. Rider, E. G. Riley, and R. N. Story for collecting specimens now in the Louisiana State University Insect Collection (LSUC).

LITERATURE CITED

- Anderson, D. M. 1974. First record of *Xyleborus semiopacus* in the continental United States (Coleoptera, Scolytidae). USDA Coop. Econ. Ins. Rpt. 24: 863-864.
- . 1975. Change in scientific name. USDA Coop. Econ. Ins. Rpt. 25: 10.
- Bright, D. F. 1968. Review of the tribe Xyleborini in America north of Mexico (Coleoptera: Scolytidae). Can. Entomol. 100: 1288-1323.
- Cancienne, E. A. 1976a. A scolytid beetle (*Xylosandrus compactus*)—Louisiana. USDA Coop. Plant Pest Rpt. 1: 558.
- . 1976b. A scolytid beetle (*Xylosandrus compactus*)—Louisiana. USDA Coop. Plant Pest Rpt. 1: 642.
- Chapin, J. B. 1978. A scolytid beetle (*Xylosandrus germanus*)—Louisiana. USDA Coop. Plant Pest Rpt. 3: 350.

- Dixon, W. N. and R. E. Woodruff. 1982. The black twig borer, *Xylosandrus compactus* (Eichhoff) (Coleoptera: Scolytidae). Fla. Dept. Agric. and Consumer Serv., Div. Plant Ind., Entomol. Circ. 250. 2 pp.
- Hardee, H. B., D. M. Anderson, D. L. Ham, and J. D. Walters. 1980. Black twig borer (*Xylosandrus compactus*)—South Carolina. USDA Coop. Plant Pest Rpt. 5: 643.
- Hunt, T. N. 1979. A scolytid beetle (*Xylosandrus crassiusculus*)—North Carolina. USDA Coop. Plant Pest Rpt. 4: 237.
- Kissam, J. B. 1979. A scolytid beetle (*Xylosandrus crassiusculus*)—South Carolina. USDA Coop. Plant Pest Rpt. 4: 801.
- McQueen, H. F. 1976. A scolytid beetle (*Xylosandrus compactus*)—Alabama. USDA Coop. Plant Pest Rpt. 1: 761, 864.
- Oliver, A. D. 1978. Introduced ambrosia beetle: A new pest of trees. Louisiana Agric. 21: 3, 13.
- United States Department of Agriculture. 1964. Ambrosia beetles—Indiana. Coop. Econ. Ins. Rpt. 14: 1167.
- Weber, B. C. and J. E. McPherson. 1982a. The distribution of *Xylosandrus germanus* in America north of Mexico (Coleoptera: Scolytidae). Great Lakes Entomol. 15: 171–174.
- . 1982b. Annotated bibliography of the ambrosia beetle *Xylosandrus germanus* (Coleoptera: Scolytidae). Great Lakes Entomol. 15: 175–183.
- . 1983. World list of host plants of *Xylosandrus germanus* (Blandford) (Coleoptera: Scolytidae). Coleopt. Bull. 37: 114–134.
- Wood, S. L. 1969. New synonymy and records of Platypodidae and Scolytidae (Coleoptera). Great Basin Nat. 29: 113–128.
- . 1977. Introduced and exported American Scolytidae (Coleoptera). Great Basin Nat. 37: 67–74.
- . 1982. The bark and ambrosia beetles of north and central America (Coleoptera: Scolytidae), a taxonomic monograph. Great Basin Nat. Mem. 6. 1359 pp.