

FIRST REPORT OF *INCISITERMES MINOR* (ISOPTERA:
KALOTERMITIDAE) IN LOUISIANA

MATTHEW T. MESSENGER¹, RUDOLF H. SCHEFFRAHN² AND NAN-YAO SU²

¹City of New Orleans Mosquito and Termite Control Board
6601 South Shore Harbor Boulevard, New Orleans, LA 70126

²Ft. Lauderdale Research and Education Center, University of Florida
Institute of Food & Agricultural Sciences, 3205 College Avenue
Ft. Lauderdale, FL 33314

On 9 June 1998, drywood termite alates, soldiers, and pseudergates were collected from inside a dead limb of a living Arizona ash, *Fraxinus velutina* Torr., tree inside 31-acre Louis Armstrong Park, which is located immediately northwest of the French Quarter in New Orleans, Louisiana. Subsequent inspection of Perseverance Hall in the park revealed an extensive drywood termite infestation on the first and second floors. Perseverance Hall is located in the southeast portion of the park approximately 25 meters from the ash tree. On 22 July 1999, a drywood soldier was collected from inside Perseverance Hall. Previously, only a few pseudergates and dark-colored wings had been recovered. The alates and soldiers collected from the ash tree and the soldier and wings recovered in Perseverance Hall were identified as the western drywood termite, *Incisitermes minor* (Hagen) (Isoptera: Kalotermitidae) using termite keys developed by Banks & Snyder (1920), Snyder (1954), Weesner (1965), and Scheffrahn & Su (1994). *Incisitermes minor* alates were also collected during the last week of May until the last week of June from 20.7 cm × 10.2 cm glue traps (TRAPPER@LTD, Bell Laboratories, Inc., Madison, WI.) placed near lights inside the park and on the perimeter fence surrounding the park. Two *I. minor* alates were recovered from 19 traps in 1998 and 28 alates were recovered from 70 traps in 1999. These glue traps were originally placed in the park to monitor flight activity of the Formosan subterranean termite, *Coptotermes formosanus* Shiraki (Isoptera: Rhinotermitidae). This is the first record of *I. minor* in Louisiana and the first infestation in non-structural wood noted for this species in Louisiana. Voucher specimens were deposited at the University of Florida termite collection in Ft. Lauderdale and at the City of New Orleans Mosquito and Termite Control Board termite collection in New Orleans.

Incisitermes minor is considered one of the five most economically important and destructive termites in the United States (Su & Scheffrahn 1990). However, the main distribution of *I. minor* is primarily found in the southwestern U.S. and northwestern Mexico (Light 1934). Non-native drywood termite species are generally introduced into new areas after infested furniture and lumber is shipped from one state to another. The first introduction of *I. minor* in Florida was reported after alates swarmed from an infested chair that was shipped from California (Scheffrahn et al. 1988). Snyder (1954) reported the introduction of *I. minor* into a church in Cleveland, Ohio, in wood boxes shipped from Mexico and into a house in Niagara Falls, New York, from grape boxes shipped from California. *Incisitermes minor* was also introduced to a building in Toronto, Canada (Grace et al. 1991). Other reports of *I. minor* introductions in structural wood include Ohio, Oklahoma, Arkansas, Maryland, and Iowa (Gay 1967). Howell et al. (1987) reported *I. minor* from furniture in Texas.

The source of the *I. minor* infestation in New Orleans is unclear. It is not known whether the ash was infested with *I. minor* before being planted near Perseverance Hall 15-18 years ago. Some reports suggest Perseverance Hall has had a drywood in-

festation for at least 5-10 years. The introduction may have occurred when infested furniture was shipped from California, Arizona, or northwestern Mexico and placed inside Perseverance Hall or one of the other three adjacent buildings.

In August, 1999 Perseverance hall and adjacent buildings were leased to the National Park Service. Planned control measures for Perseverance Hall and adjacent buildings include fumigation and removal of the infested Arizona ash limb.

SUMMARY

A well-established infestation of the western drywood termite, *Incisitermes minor* (Hagen) (Isoptera: Kalotermitidae), was discovered in Louis Armstrong Park in New Orleans, Louisiana. Colonies are present inside historical Perseverance Hall and in a dead limb of a nearby live Arizona ash tree. This is the first report of this species in Louisiana and the first report of a non-endemic drywood termite species infesting non-structural wood.

We are grateful to E. S. Bordes and M. K. Carroll, City of New Orleans Mosquito and Termite Control Board, for reviewing the manuscript. Partial funding for this project was provided by USDA-ARS under the grant agreement No. 58-6435-8-108. This article is Florida Agricultural Experiment Station Journal Series No. R-06970.

REFERENCES CITED

- BANKS, N., AND T. E. SNYDER. 1920. A revision of Nearctic termites with notes on biology and geographic distribution. Bull. Smithsonian Mus. 108: 1-228.
- GAY, F. J. 1967. A world review of introduced species of termites. Bull. Commonwealth Sci. Industrial Res. Organ. 286: 1-88.
- GRACE, J. K., G. M. CUTTEN, R. H. SCHEFFRAHN, AND D. K. M. KEVAN. 1991. First infestation by *Incisitermes minor* of a Canadian building (Isoptera: Kalotermitidae). Sociobiology 18: 299-304.
- HOWELL, H. N., P. J. HAMAN, AND T. A. GRANOVSKY. 1987. The geographical distribution of the termite genera *Reticulitermes*, *Coptotermes*, and *Incisitermes* in Texas. Southwest. Entomol. 12: 119-125.
- LIGHT, S. F. 1934. The distribution and biology of the common dry-wood termite, *Kalotermites minor*, pp. 210-216 in C. A. Kofoid, S. F. Light, A. C. Horner, M. Randall, W. B. Herms, and E. E. Bowe [eds.] Termites and termite control. 2nd ed. University of California Press, Berkeley, California. 795 pp.
- SCHEFFRAHN, R. H., AND N.-Y. SU. 1994. Keys to soldier and winged adult termites (Isoptera) of Florida. Florida Entomol. 77: 460-474.
- SCHEFFRAHN, R. H., J. R. MANGOLD, AND N.-Y. SU. 1988. A survey of structure-infesting termites of peninsular Florida. Florida Entomol. 71: 615-630.
- SNYDER, T. E. 1954. Order Isoptera. The termites of the United States and Canada. Natl. Pest Contr. Assn., New York, New York. 64 pp.
- SU, N.-Y., AND R. H. SCHEFFRAHN. 1990. Economically important termites in the United States and their control. Sociobiology 17: 77-94.
- WEESNER, F. M. 1965. Termites of the United States, a handbook. Natl. Pest Contr. Assn., Elizabeth, New Jersey. 70 pp.