



## Introduction

Currently, more than 2800 scientifically described termite species are known worldwide, of 180 types of timber and buildings appear as pests. In Europe, only in the case of terrestrial termites, it is limited to the genus *Reticulitermes*. The common occurrences are in Italy, France, Spain, Portugal and Greece (Pospischil 2010, Plarre 2018). The introduction and first settlement of subterranean termites in the Switzerland describe Mueller and Aufranc (2022).

### Subterranean termites

The best-known case with subterranean termites in Germany was in Hamburg. According to Plarre (2004) the infestation can be reduced to 5% from 2000 to 2004 thanks to bait use and is probability has now expired (Plarre 2018). A somewhat less well-known case was discovered in 1966 in the Grossmarkthalle in Munich, which after eyewitness testimonies must have existed for a long time and, after discovery with a massive use of chemical insecticides has been combated. According to Grosser (1985) Munich it is not clear whether it is *R. flavipes* (Kollar) or *R. lucifugus* (Rossi) was. Various records of introduced subterranean termites (Rhinotermitidae) have been described by Plarre (2018). These were different types (Table 1).

Period / Year	Place / Detection	Species of termites
1933 - 2013	Hamburg / Outdoor and buildings	<i>Reticulitermes flavipes</i>
1966	München* / Building	<i>Reticulitermes</i> sp. (Suspicion of <i>flavipes</i> oder <i>lucifugus</i> )
2010 - 2012	Greater Berlin / amusement park	<i>Coptotermes gestroi</i>
2007	Dessau / courtyard	<i>Reticulitermes</i> sp.
2006	Potsdam / greenhouse	<i>Zootermopsis nevadensis</i>

Tabelle 1: Overview of known cases with subterranean termites in Germany according to Plarre (2018) und \*Grosser (1985)

### Drywood termites

In addition to soil termites, there are also regular cases of drywood termites in Germany. (Kalotermitidae), which are introduced. Becker and Kny (1977) reported on a long-term infestation by the drywood termite *Cryptotermes brevis* in the collections of the Ethnologisches Museum in Berlin. Despite unfavourable climatic conditions, termites were able to develop in keep and develop pine wood for more than 5 years. Sellenschlo (1999) describes six several cases with introductions in Hamburg and one in Kassel (Hessen). Plarre (2018) reports on a case in the years around 1990 in which a piano of a diplomats returning from South America with termites from *Cryptotermes brevis* (unpublished).

A case with drywood termites occurred in 2008 in a wooden house in southern Germany (Kirchroth in Bavaria). Here was originally a mirror with wooden frame from South America (Peru) with after Germany. For more than 9 years, the mirror was without signs of infestation a cool wall of a solid house. After the family moved into a wooden house, gallery corridors (Fig.2) were discovered on an inner wall made of spruce wood and subsequently by means of microwave technology (see Fig. 3) (Biebl and Parisek 2009 and [www.holzfragen.de](http://www.holzfragen.de))

In Munich, five cases with drywood termites.

Case 1 dealt in 2017 in a private apartment with pieces of furniture that were imported from Egypt. Case 2 showed a settled infestation in 2018 at a wood laminate flooring (Fig. 4-5) in a private apartment, after termites from South America with souvenirs were brought in and destroyed a wooden chest of drawers. In cases 3 and 4, smaller wooden objects in 2019 and 2021 brought to an art museum for a special exhibition and there traces and faecal pellets of termites have been found (see <https://museumsschaedlinge.de/termiten/>).

Case 5 was a solid wood cabinet from Colombia (Fig.6), which was brought to Munich in 2012.

After repeated occurrence of winged animals and feces (Fig. 7-8), animals were collected and as *Cryptotermes brevis* determined by a Spanish termite expert.



Figure: 1-3  
Drywood termites  
Kalotermitidae  
in a wooden wall  
(2008 Kirchroth)



Figure: 4-5  
Drywood termites  
at a wood laminate floor  
(2018 München)

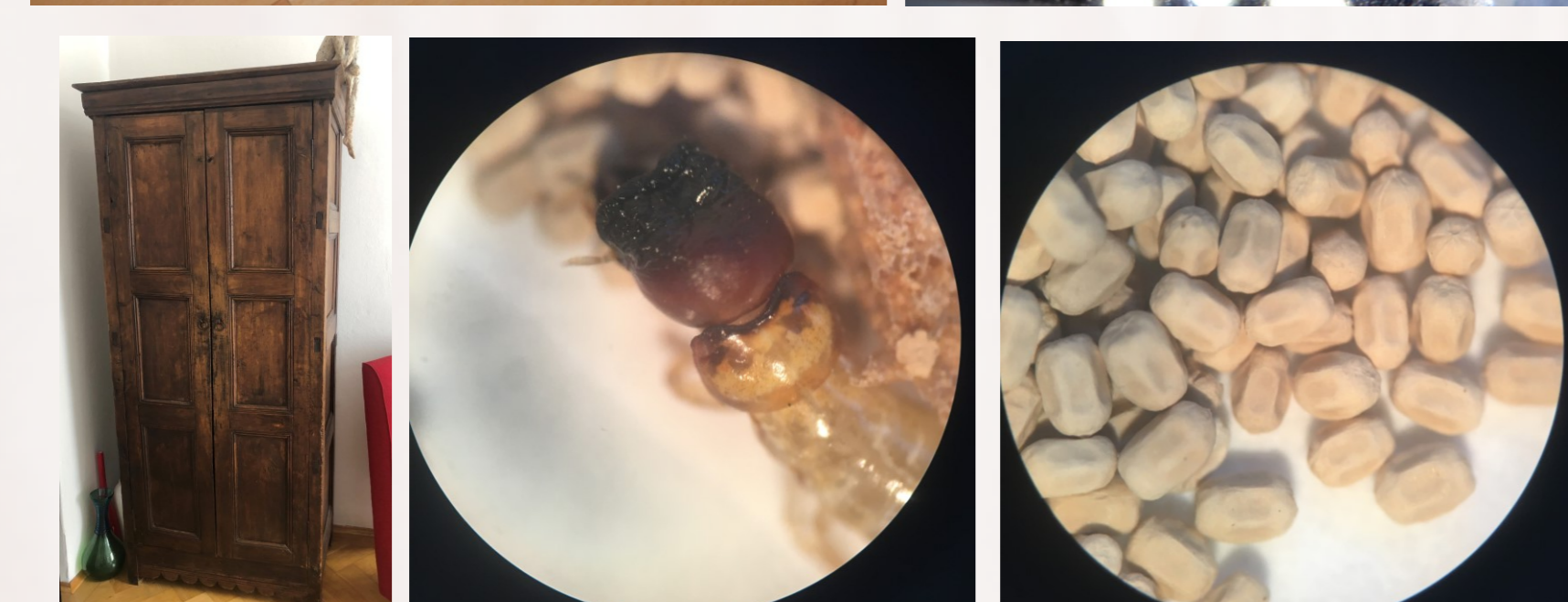


Figure: 6-8  
Drywood termites  
at a solid wood cabinet  
(2022 in München)

## Methods

An introduction of earth termites took place in 2016 with an imported olive tree from Spain to a private house in a municipality in the federal state of Baden-Württemberg (Southwest-Germany). The infestation on the olive tree, which was transplanted in a hole in the ground in the conservatory, was discovered for the first time in 2018 by feeding passages and excrement pellets and the tree was removed. 2020 showed Alate for the first time at the hole in the ground in the conservatory, which subsequently closed became. Other recognizable traces of infestation were found on a nearby wooden summerhouse discovered. In 2022, residents repeatedly provided winged sex animals and workers (see Figs. 9 and 11) in a corridor in the basement. Nesting material was used along a heating pipe in the basement (Fig.10). In June 2022, the author was appointed as an expert to determine and consultation was consulted. Further details of the case cannot be given.



Figure 9-10  
Living imagines and  
nesting material along a  
heating pipe the basement.  
(2022 Baden-Württemberg)



Figure: 11-13  
Alates, faecal pellets and  
detail of mandibles  
(2022 Baden-Württemberg)

## Results

In the present case from Baden-Württemberg, it is an importation by plants and the synanthropic infestation with subterranean termites (Rhinotermitidae). The termite species is most probably *Reticulitermes lucifugus* for the following reasons. The determination on the basis of photographic material is based on separate assessments of two specialist biologists from Germany and a termite expert from Spain. Whether it is under in this context, it is a different type of reticulitermes, it is still necessary to have an exact DNA analysis with the present sample material of the animals should be carried out.

## Conclusion

Through the global movement of wood as raw material, packaging wood, furniture or cultural assets there is a worldwide distribution of some termite species (Plarre 2018, Weidner 1981). But also the international trade in plants (e.g. olive trees) can be, as with Mueller and Aufranc (2022) and in the case described, from Baden-Württemberg to an introduction of subterranean termites into urban areas. The observations from Germany show that *Reticulitermes* species have a settle a longer period of time in suitable habitats under synanthropic conditions and can develop.

In Germany or other Central European countries such as Switzerland, Austria there are currently no approved baits or biocides against terrestrial termites.

In the event of an infestation, this leads to: problems for those affected due to the European Biocidal Products Regulation with a lack of national authorisations for pesticides.

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