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SOLENOPSIS INVICTA: EVIDENCE FOR RECENT INTERNAL IMMIGRATION ACROSS PROVINCES IN ARGENTINA

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Ant tramp species refer to those with intercontinental distributions that coincide with a likely predilection for hitchhiking with human movements (Passera 1994). One such species, *Solenopsis invicta* Buren has been unintentionally transported across the globe from its native home in central South America over the last 70 years or more (Tschinkel 2006). Within South America it is found in a diverse set of biogeographic regions extending from its southern limit in the dry Chaco, across through the wet Mesopotamian region in Argentina and the Pampas of Uruguay and northwards through the Pantanal and other vegetational areas of Brazil (Pitts 2002). Its tramp status as well as that of others in the genus renders 'original' or natural distributional limits difficult to interpret, with disjunct populations of this species and others easily assigned to human transport (Trager 1991), rather than to relictual or other possible interpretations. Historical knowledge of the biogeography of the genus in many of these areas is lacking and suggests that in many cases, only molecular analyses are likely to offer resolution to competing distributional interpretations.

Here we note the recent, presumably intracontinental immigration of *Solenopsis invicta* across provinces in Argentina. On 22 Aug 2006, while searching for *Pseudacteon* parasitoids of *Solenopsis richteri* in the Reserva Ecológica Costanera Sur (RECS) in Buenos Aires (S 34.6, W 58.3), we found 8 colonies of *Solenopsis* that we recognized as *S. invicta*. Voucher specimens were sent to James Trager who independently confirmed this diagnosis. *Solenopsis invicta* has never been recorded for the province (Pitts 2002) and the nearest source for the population is likely to be Rosario (ca. 250 km distant) in Santa Fe Province (Ross & Trager 1990). The fauna for the area (including that of the ants) is probably the best known for Argentina, as Buenos Aires is the demographic and academic center of the country. If a pest species such as *S. invicta* had been found previously it is very likely to have been recorded.

RECS is built on reclaimed land from the Rio de la Plata based on a polder-system. Initial reclamation was begun in 1978 and the land was declared a natural reserve in 1985 (Faggi & Czgononi 1987). The first date suggests the earliest possible time that *S. invicta* could have been present in the locality. Our group was visiting the Reserva on a weekly to monthly basis from 1996 through 2001, including very thorough searches of potential hosts of *Pseudacteon* (Bruzzone 2004). We had failed to find *S. invicta*, however, which suggests an even more recent invasion. We considered the hypothesis that this population had been moved in with the large volumes of soil used in current reclamation work in the park but have determined that this material was extracted from local areas in Buenos Aires province.

How *S. invicta* arrived here is an open question. The Reserva is a vegetated island (360 ha) abutting the Rio Plata in the middle of the hugely urbanized zone of Buenos Aires. Many plant species documented here are likely to have been swept in along the Paraná, Uruguay Rivers or their tributaries (Faggi & Czgononi 1987). If the original colony(s) that founded this population had floated downstream such common vegetational flotsam might have provided necessary assistance. Buenos Aires is a major international shipping point and the ants might also have used boats as vectors. In either case, there are likely additional population fragments of *S. invicta* along riverfronts, though we have not yet found any. The observed population is likely to expand, given that red imported fire ant reproduction is predicted within the province by Morrison et al. (2004). Future studies examining competition between this population and surrounding *S. richteri* will be of interest since the dynamics might be used to reflect back on the initial confrontations between these 2 species in Alabama 70 years ago.

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SUMMARY

Solenopsis invicta was found in the city and the province of Buenos Aires Argentina for the first time. This discovery is also the first clear record of internal immigration within the native home range of this noted tramp species.

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