



## **THE IMPORTANCE OF A PROPER SPECIFIC DETERMINATION IN TICKS (ACARI: IXODIDA)**

### **S. Nava**

Instituto Nacional de Tecnología Agropecuaria, Estación Experimental Agropecuaria Rafaela, and Consejo Nacional de Investigaciones Científicas y Técnicas, CC 22, CP 2300 Rafaela, Santa Fe, Argentina. E-mail: [nava.santiago@inta.gob.ar](mailto:nava.santiago@inta.gob.ar)

The use of a correct taxonomic nomenclature is vital for a proper communication among scientists, including those working with ticks. The robustness of the hypotheses about taxonomic status of tick species is currently tested by the use of different lines of evidence, including morphological analyses on the presence of fixed characters, phenetic distinguishability, genetic divergence and reproductive compatibilities. In this sense, the combination of biological, molecular and morphological studies shows that apparently well-known species of ticks are, in fact, formed from more than one taxon stressing the importance of knowing if species complexes include taxa already described, new species or both. An accurate determination of species is indispensable to studies of tick ecology, evolution and the epidemiology of tick-borne diseases.