

## ON THE POSSIBILITY OF CRYPTOGRAM USE FOR THE CHARACTERIZATION OF TICK SPECIES

The use of cryptograms is well known in virological literature (e.g. Fenner F., Intervirology 7: 1—115, 1976). The same approach can be also used for the characterization of different tick species and—based on similar principles—for other hematophagous arthropods as well. It is recommended to note the following most important features of individual species: 1. systematic position; 2. geographic distribution; 3. host range and 4. medical importance.

Systematic position is indicated by three first letters of subgeneric name. In case that no subgenera are recognized in a certain genus, only abbreviation of the generic name is given. The following abbreviations are recommended for identically beginning taxa: *Aboimisis* — Abm, *Aborphysalis* — Abp, *Alloceraea* — Alc, *Alloixodes* — Ali, *Allophysalis* — Alp, *Amblyocentor* — Amc, *Amblyomma* — Amb, *Anocentor* — Anc, *Anomalohimalaya* — Anh, *Dermacentor* — Der, *Dermaphysalis* — Dep, *Ixodes* — Ixo, *Ixodiopsis* — Ixp, *Hyalomma* — Hya, *Hyalommata* — Hys, *Hyalommina* — Hyn, *Haemalastor* — Hal, *Haemaphysalis* — Hae, *Haemixodes* — Hai, *Ornamentum* — Orm, *Ornithodoros* — Orn, *Ornithophysalis* — Orp, *Parantricola* — Par, *Paraphysalis* — Pap, *Partipalpiger* — Pag, *Rhipicentor* — Rhc, *Rhipicephalus* — Rhi, *Rhipistoma* — Rhs, *Theileriella* — The, *Theriodoros* — Thd.

Geographic distribution includes only the main data. Limited occurrence is designated by parentheses. The following most important geographic areas may be distinguished: Europe — Eu, Africa — Af, Madagascar — Ma, Asia, Palearctic part — Asp, Asia, Oriental part — Aso, Indonesia — In, Philippines — Ph, Japan —

Ja, Australia and New Guinea — Au, New Zealand — NZ, North America — Ams, Central America — Amc, South America — Amm, cosmopolitan distribution — C.

Host range can be characterized by three items: a — Number of hosts during the life cycle (1, 2, 3, n — one, two, three, more than three hosts); b — Systematic position of hosts, separately for immature stages and for adults (Am — Amphibia, R — Reptilia, A — Aves, M — Mammalia); c — Degree of specificity of adults expressed as monoxenic (m — members of one host species parasitized), oligoxenic (o — members of one host family parasitized), polyxenic (p — members of one host order parasitized), heteroxenic (h — members of more orders of one host class parasitized) and euryxenic (e — members of more host classes parasitized).

Medical importance can involve participation in transmission of disease agents among humans (H), domestic animals (Ad) or free living animals (Af) under natural conditions. Possible participation is indicated as p, positive isolation of a certain agent as +. Unavailable data are designated as O.

By this manner the cryptogram for *Ixodes ricinus* can be given as Ixo/Eu (Af Asp)/3 RAM (A)M e/H Ad Af, for *Haemaphysalis elongata* as Elo/Ma/3 M M o/Af-p, for *Boophilus microplus* as Boo/C/1 M M h/Ad, for *Argas streptopelia* as Per/Af/n A A o/ +.

The use of cryptograms makes possible a quick orientation in the properties of individual species.

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