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RICHNESS AND STRUCTURE OF AN ODONATA LARVAL ASSEMBLAGE FROM RÍO PINOLAPA, TEPALCATEPEC, MICHOACÁN, MEXICO IN RELATION TO THEIR HABITAT CHARACTERISTICS

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The odon. larval assemblage from Río Pinolapa (RP) in the municipality of Tepalcatepec, Michoacán, is described. Sampling was conducted twice in each season (8 trips in total), and additionally some physicochemical variables of the river channel were recorded. Strata (shores, riffles and eddies) and seasonal variation of assemblages are described and compared using classical diversity measures such as Shannon's diversity index, Simpson's diversity index as a dominance measure, Margalef's richness index and Pielou's evenness index. For comparing strata and seasonal diversity the Renyi's diversity profiles were used. A Cluster Analysis was performed on a Bray-Curtis similarity matrix to explore the faunal relationships among year seasons and strata. CCA was also performed to investigate the relationships between the physicochemical and species abundance matrixes. As results, 28 spp. (12 Zygoptera and 16 Anisoptera) were recorded as larvae. Most abundant species were *Erpetogomphus elaps*, *Brechmorhoga praecox* and *Phyllogomphoides luisi*. The highest number of spp. was registered in winter and the lowest in summer. Among strata the highest abundance was recorded in riffles, although the shoreline had the largest number of spp. The most similar assemblages were those of autumn and winter. Shore habitats were more heterogeneous than eddies and riffles and this could explain the larger number of species. The Clench's model explains better the data. Additionally, we used the slope of cumulative number of spp. curve for assessing completeness of the RP list. CCA was significant, with pH, autumn, shoreline and riffles the most important variables. This means that species variation is related to physicochemical, temporal and strata conditions in RP.

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AT THE CENTENARY OF DR B.F. BELYSHEV'S BIRTH: THE IMPACT OF HIS WORK ON SIBERIAN ODONATOLOGY

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A brief appreciation of B.F. Belyshev's (1910-1993) work is presented and its impact on the current development of odonatology in Siberia is outlined. The bibliography (1993-2010, partim) of the members of his "school" is appended.

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EUGREGARINE PARASITISM OF *ERYTHEMIS SIMPLICICOLLIS* (SAY) AT A CONSTRUCTED WETLAND: A FITNESS COST TO FEMALES? (ANISOPTERA: LIBELLULIDAE)

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Eugregarine parasites infect a wide variety of invertebrates. Some authors suggest that eugregarines are rather harmless, but recent studies suggest otherwise. Among odonate-eugregarine investigations, Zygoptera have been more frequently studied than Anisoptera. Adult dragonfly populations were surveyed for eugregarines at a constructed, flow-through wetland system and the fitness cost of infection was assessed in a common and widespread dragonfly host sp., *E. simplicicollis*. Populations were sampled weekly throughout the flight season. Host fitness parameters measured included wing load, egg size, clutch size, and total egg count. Of the 22 host spp. surveyed, 8 hosted eugregarines and 2 of these odon. spp. were previously undocumented as hosts. While eugregarine parasitism has been shown to exhibit seasonality, parasite prevalence and intensity in *E. simplicicollis* in this study showed no seasonal trend. The fitness parameters measured were not correlated with the presence or intensity of eugregarines. These findings suggest that either eugregarines do not affect wing loading and egg production in *E. simplicicollis*, or that virulence depends on parasite intensity and/or the specific eugregarine spp. infecting the hosts.

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CONSERVATION ECOLOGY OF THE BRACKISH WATER DAMSELFLY, *MORTONAGRION HIROSEI* ASAHINA: DYNAMICS OF A NEWLY ESTABLISHED REED COMMUNITY (ZYGOPTERA: COENAGRIONIDAE)

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The endangered *M. hirosei* perches in the understory of dense reed communities in brackish water. To aid the conservation of a population, a new reed community (2110 m^2) was established in abandoned rice paddy fields adjacent to the original, threatened community (500 m^2) by transplanting reed rhizomes in January 2003; brackish water was supplied to the new community. It was assessed whether the new community developed into a suitable habitat for *M. hirosei* by comparing it to the original community in 2005. Shoot height, density, and aboveground biomass of the reeds and relative light intensity in the community were measured periodically during the growing season. Reed height and biomass were significantly lower in the new community than in the original one. This suggests that 3 yr after transplantation the new community was still underdeveloped. However, shoot density and relative light intensity in the understory were not significantly different between the two communities. Thus, the new reed community was offered in 2005 to *M. hirosei* adults as a suitable habitat.

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CHLOROGOMPHINAE DRAGONFLIES OF GUIZHOU PROVINCE (CHINA), WITH FIRST DESCRIPTIONS OF *CHLOROGOMPHUS TUNTI* NEEDHAM AND *WATANABEOPETALIA USIGNATA* (CHAO) LARVAE (ANISOPTERA: CORDULEGASTRIDAE)

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Five species are recorded from the province, 4 of which are new for the region. *C. tunti* and *W. usignata* larvae are described based on the specimens reared in the laboratory. The adults are illustrated and some biological information is provided.

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SHORT COMMUNICATIONS

OXYAGRION MIRNAE SPEC. NOV. FROM BRAZIL (ZYGOPTERA: COENAGRIONIDAE)

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The new sp. is described, illustrated and compared with the other 25 congeners. Holotype ♂: Virginia, Minas Gerais, Brasil, 3-II-2010; deposited in author´s collection.

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DESCRIPTION OF MALE *RHYOTHEMIS PHYLLIS APICALIS* KIRBY, 1889 (ANISOPTERA: LIBELLULIDAE)

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The ♂ allotype is described and illustrated from the Northern Province of New Caledonia, and compared with the *R. p. phyllis* from Thailand. The habitats of *R. p. apicalis* are described and a list of odon. spp. recorded during the 1999 and 2000 surveys is added.

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EPOPHTHALMIA BANNAENSIS SPEC. NOV., A NEW DRAGONFLY FROM YUNNAN, CHINA (ANISOPTERA: CORDULIIDAE)

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The new sp. is described and illustrated. Holotype ♂: China, Yunnan: Xishuangbanna Tropical Botanical Garden (21.55°N, 101.13°E), 500m, 4-VIII-2004; deposited at the Institute of Zoology, Shaanxi Normal University, Xi'an, China. It is related to *Epophthalmia frontalis* Selys, but is easily separated based on structural differences of the secondary and caudal genitalia and slight differences in colouration.