

ODONATOLOGICAL ABSTRACTS

1987

- (13326) HAYNES, A., 1987. Species richness, abundance and biomass of benthic invertebrates in a lowland tropical stream on the island of Viti Levu, Fiji. *Arch. Hydrobiol.* 110(3): 451-459. — (Govt Bldgs, P.O. Box 2431, Suva, Fiji).

The monthly abundances (11 months) are stated for a Zygopt. and an Anisopt. sp., without spp. names.

1993

- (13327) BERDNIKOV, V.A., S.M. ROZOV, S.V. TEMNYKH, F.L. GOREL' & O.E. KOSTERIN, 1993. Adaptive nature of interspecific variation of histone H1 in insects. *J. mol. Evol.* 36: 497-507. — (Last Author: Inst. Cytol. & Genet., Siber. Br., Russ. Akad. Sci., Lavrentiev Ave 10, RUS-630090 Novosibirsk).

An electrophoretic analysis of histone H1 and its fragments was carried out in 7 insect orders, incl. 33 odon. spp. of 6 fam. A total of more than 500 histone H1 variants were examined. For some of them a study of general molecular structure was performed by the method of incomplete succinylation. The molecular length of the fragment containing the C-terminal domain, presumably responsible for chromatin condensation, was found to be highly variable. The variance of the logarithm of the electrophoretic mobility of H1, which reflects its molecular length, was estimated (Odon.: 0.81-0.90). There was no relationship between this variance and the evolutionary age of an order. On the other hand, the variance appears to correlate strongly with the recent spp. number in the order, indicating that the accumulation of variation in H1

molecular length is in line with the general intensity of adaptive processes in the orders. This result seems to provide evidence for an adaptive mode of the evolution of the molecular length of H1. The possible role of H1 variability in adaptive evolution is discussed.

1996

- (13328) HELLRIGL, K. & H. WASSERMANN, 1996. Odonata-Libellen. In: K. Hellrigl [Ed.], *Die Tierwelt Südtirols: kommentiertes systematisch-faunistisches Verzeichnis der auf dem Gebiet der Provinz Bozen-Südtirol (Italien) bekannten Tierarten*, pp. 292-297, Naturmus. Südtirol, Bozen, ISBN 88-7014-922-6. — (First Author: Wolkensteinstr. 83, I-39042 Brixen).

An annotated and commented checklist of 58 spp., known so far from South Tyrol, Italy.

- (13329) *RUNDBRIEF NORDDEUTSCHER LIBELLENKREIS*, Hamburg (ISBN none), Nos 1 (6 June 1996), 2 (10 June 1996), 3 (18 Jan. 1997), 4 (18 Jan. 1997), 5 (1 May 1997), 6 (8 Nov. 1997), 7 (29 Jan. 1998), 8 (13 June 1998), 9 (16 Nov. 1998), 10 (10 Feb. 1999), 11 (10 May 1999), 12 (28 Dec. 1999). Currently edited & produced by W. Scott (Kleiner Schäferkamp 16d, D-20357 Hamburg) & M. Zörner (Buchenring 71, D-22359 Hamburg). — [In No. 2 the publisher is indicated as "Libellenarbeitsgemeinschaft", and from No. 3 onwards as "Libellenkundliche Arbeitsgemeinschaft"].

This is a newsletter of the dragonfly workers of Hamburg. In addition to various announcements and notifications, some issues also contain brief scientific notes and abstracts of papers presented at

the meetings of the local odonatol. community.

1997

(13330) BAZZANTI, M., S. CHIAVARINI, C. CREMISINI & P. SOLDATI, 1997. Distribution of PCB congeners in aquatic ecosystems: a case study. *Environment international* 23(6): 799-813. — (First Author: Dipto Biol. Anim. Uomo, Univ. Roma "La Sapienza", Viale dell'Università 32, I-00185 Roma). Polychlorinated biphenyls (PCB) congeners were determined in water samples, sediments and animal spp., in the frame of a survey of the Arroni R., nr Rome, Italy, after a major contamination episode. Spp. were selected on the basis of their living and feeding habits and evaluated as candidate bio-indicators of PCB pollution in this lotic ecosystem. Total PCB concentrations in water were found to be low (ng/L level), and in sediments, ranged from about 10 to 200 µg/kg dry weight, depending on the distance from the contamination source. PCB patterns in sediments showed a prevalence of higher chlorinated congeners over time. Concentrations in *Calopteryx splendens* and *Anax imperator* ranged from 60 to 400 µg/kg dry weight, showing significantly different sp.-to-sp. patterns. PCB concentrations were almost parallel in sediments for different sampling stations, while differences in patterns among spp. can be explained in terms of bioaccumulation/excretion mechanisms. The study confirms that congener physical and chemical parameters, different degradation rates, feeding habits, and mobility of the analysed aquatic organisms, metabolism and excretion mechanisms are to be considered to explain the distinctive PCB patterns of different samples.

(13331) CURRIE, R.S., W.L. FAIRSCHILD & D.C.G. MUIR, 1997. Remobilization and export of cadmium from lake sediments by emerging insects. *Envir. Toxicol. Chem.* 16(11): 2333-2338. — (Second Author: Gulf Fisheries Cent., P.O. Box 5030, Moncton, NB, E1C 9B6, CA). Emerging odon., referable to 6 aeshnid, gomphid and macromiid genera, were collected at Lake 382, NW Ontario, Canada, to estimate quantitatively their export of Cd. The Cd concentrations were (µg/g wet weight ± SD). 0.60±0.55 (in 11 immatures) and 0.11±0.09 (in 6 adults). Cd exported from the sediments by insects may be remobilized and become more available to aquatic organisms or

enter the terrestrial ecosystem and become available to insectivores.

(13332) DANIS-LOZANO, R., M.H. RODRIGUEZ, J.I. ARREDONDO-JIMENEZ, M. HERNANDEZ-AVILA & C. MALLORCA, 1997. Aquatic insects associated with *Anopheles albimanus* (Diptera: Colicidae) breeding sites in southern Mexico. *Envir. Ent.* 26(4): 828-838. — (Cent. Invest. Paludismo, Inst. Nac. Salud Publica, P.O. Box 537, Tapachula, Chiapas-30700, Mexico). Aquatic Coleoptera, Hemiptera and Odon., associated with *A. albimanus* larval habitats, were investigated in various hydrological habitat types along the coastal plain of S Chiapas, Mexico. The odon. were represented by 16 (named) genera, but the spp. are not listed. In Coleopt. and Odon., significant association was found in regression models with respect to mosquito larvae. However, adjusted models that included environmental parameters proved these associations to be nonsignificant.

(13333) SCHEUHAMMER, A.M., D.K. McNICOL, M.K. MALLORY & J.J. KERKES, 1997. Relationships between lake chemistry and calcium and trace metal concentrations of aquatic invertebrates eaten by breeding insectivorous waterfowl. *Envir. Poll.* 96(2): 235-247. — (First Author: Can. Wildlife Serv., Natn. Wildl. Res. Cent., 100 Gamelin Blvd, Hull, QB, K1A 0H3, CA). Ca, P, Al and trace metal (Cu, Ni, Zn, Cd, Pb) concentrations were measured in several spp., incl. *Leucorrhinia glacialis*, *L. intacta*, *Libellula julia* and *Cordulia shurtleffi*, used as food by breeding insectivorous waterfowl, sampled from 49 lakes and wetlands in Ontario and Nova Scotia, Canada. Ca concentrations decrease with the decrease of environmental pH, in odon. they also decrease with increasing body mass, i.e. smaller individuals often have similar total quantity of Ca as larger individuals. In acidic environment, breeding waterfowl is faced with reduced prey diversity and with reduced Ca availability in the available prey. It is suggested that this probably affects the bird reproductive success (thin and porous eggshells, difficulties to replace skeletal Ca used in egg formation). Levels of Al, Cd or Pb were generally several times lower than dietary levels known to be toxic to avian consumers. Other trace metal concentrations were also not toxicologically high,

and rather within the ranges recommended as nutritionally adequate for waterfowl.

- (13334) WASSCHER, M. & K. KAPTEYN, 1997. *Onderzoekprogramma Faunabeleid: Kansen voor de groene glazenmaker, een bedreigde libellensoort* – [Fauna Management Research Program: Chances for *Aeshna viridis*, an endangered dragonfly]. Provincie Noord-Holland, Haarlem, 44 pp. (Dutch). – (Available from: Provincie Noord-Holland, Afd. Water en Groen, attn: Ms A. Don, P.O. Box 3007, NL-2001 DA Haarlem).
A thorough monograph on the occurrence, biology and habitat features of *A. viridis* in Noord-Holland prov., the Netherlands, with extensive and detailed management recommendations. – At present, the sp. is known from only 9 localities in the province, all located within the Vecht R. system, some of them in nature reserves. The largest population exists at the Hol, but the status of the sp. in the entire province is estimated merely at ca 75-150 individuals.

1998

- (13335) KOSTERIN, O.E., 1998. Vazhnye nahodki v faune strekoz (Odonata) Daur'skogo zapovednika i ego okretnostey – [Important findings on dragonfly fauna (Odonata) of the Dahurian Nature Reserve and its surroundings]. *Tez. Dokl. 11 Kongr. russ. ent. Obsch. [Problemy entomologii v Rossii]*, St Petersburg, Vol. 1, pp. 210-211. (Russ.). – (Inst. Cytol. & Genet., Siber. Br., Russ. Acad. Sci., Lavrentiev Ave 10, RUS-630090 Novosibirsk).
The fauna is briefly characterised and discussed, and 19 spp. are listed. For a monograph, see *OA* 12967.
- (13336) MATTILA, K., 1998. Hyönteistiedonannot 1997 – [Insect records 1997]. *Diamina* 7: 40-42. (Finn.). – (Lukonmäenkatu 18-B 13, FIN-33700 Tampere).
Some Finnish records for 3 odon. spp., made by members of the Tampere Ent. Soc., are listed.
- (13337) MERCERON, E., 1998. Observations sur la Riviera française. *Entomologiste* 54(2): 55. – (Les Glaieuls, 16 av. Scuderi, F-06100 Nice).
Calopteryx haemorrhoidalis is recorded from Paillon de la Grave, nr Blausase, Riviera, France; no date.
- (13338) OLIAS, M. & A. SERBEDIJA, 1998. *Zur Faunistik und Ökologie der Libellen der Kvarner-Insel Krk (Kroatien)*. Dipl.Arb. Landschaftsnutzung u. Naturschutz, Fachhochschule Eberswalde, Eberswalde. 148 pp., 74 pp. figs & maps excl. – (First Author: Schönberger Str. 51, D-08393 Meerane).
A thorough monograph on the odon. fauna and ecology of the Adriatic island of Krk, Croatia (surface 410 km², 41 spp.). During 1997-1998, 38 spp. were evidenced at 45 water bodies (exuviae of 37 spp.), 14 of which are recorded from the island for the first time. The co-occurrence of *Lestes parvidens* and *L. viridis* is of particular interest. The migratory *Lindenia tetraphylla* has here the northernmost breeding population in the Mediterranean area.
- (13339) ONORE, G. & V. CEVALLOS, 1998. Massive movement of *Panoquina sylvicola* in southern Ecuador (Lepidoptera: Hesperidae). *Trop. Lepidoptera* 9(1): 28. – (Depto Biol., Pontifica Univ. Católica, Ecuador, 12 de Octubre y Roca, Quito, Ecuador).
A migratory movement of this hesperiid, associated with *Siproeta epaphus* (Lepid., Nymphalidae) and an unidentified aeshnid, in S Ecuador, 18-IV-1992, is described. The *Panoquina* skippers were flying 0.5-2.0 m above the ground, the nymphalids 2.0 m, and the aeshnids at 0.5 m above the ground, all in W-E direction, crossing the Loja-Saraguro road, alt. 3100 m.
- (13340) RASIMUS, I., 1998. Kesäretket Helvetinjärven kansallispuistoon – [Entomological field trips to the Helvetinjärvi National Park in central Finland]. *Diamina* 7: 9-10. (Finn.). – (c/o Ed.: Rantatie 16, FIN-37600 Valkeakoski).
5 odon. spp. are listed, incl. *Aeshna crenata* and *Somatochlora alpestris*.
- (13341) VALTONEN, P., 1998. Kolme vesihyönteisretkeä kesällä 1997 – [Three field trips for aquatic insects in Finland, jn summer 1997]. *Diamina* 7: 19-22. (Finn.). – (Kaukolankuja 2, FIN-33820 Kangasala).
Deals with the trips to Lapland, the Åland Isls, and to the Jyväskylä region in central Finland, and covers mainly the aquatic Coleoptera, but several notes on the Odon. are included. In Åland, an earlier *Ischnura pumilio* locality was revisited, but the sp.

was not sighted anymore.

- (13342) VALTONEN, P., 1998. Suku Aeshna Suomessa ja Pirkanmaalla, 2. — [Das Geschlecht Aeshna in Finnland und in Pirkanmaalla, 2. *Diamina* 7: 11-18. (Finn., with Germ. s.). — (Kaukolankuja 2, FIN-33820 Kangasala).
This is the second part of a series that commenced with the paper listed in OA 11485. It deals with *A. crenata*, *juncea*, *serrata* and *subarctica*. The treatment is similar as in the first part, and a key to Finnish Aeshnidae is provided, based on wing venation.

- (13343) WASSCHER, M., G.O. KEIJL & G. VAN OMMERING, 1998 [received Sept. 2000]. *Bedreigde en kwetsbare libellen in Nederland: toelichting op de Rode lijst — Threatened and vulnerable dragonflies in the Netherlands: explanatory notes to the Red List*. Rapport IKC Natuurbeheer, No. 30, Wageningen 42 pp. (Dutch, with Engl. s.). — (Orders to: IKC Natuurbeheer, P.O. Box 30, NL-6700 AA Wageningen).
This is an abridged and interpretative version of the basic document, as described in OA 13253.

1999

- (13344) ANGELIBERT, S., J. CAYROU, R. CÉRÉGHINO & N. GIANI, 1999. Biodiversité de trois mares de type Saint-Namphaise du Parc Naturel Régional des Causses du Quercy. *Bull. Soc. Hist. nat. Toulouse* 135: 37-45. (With Engl. s.). — (Cent. Ecol. Syst. Aquat. Continentaux, 118 rte de Narbonne F-31062 Toulouse).
In the arid Causse region of SW France aquatic systems are scarce. From the 3 wetlands studied (Sauvage, Nave, Excazals), 13 odon. spp. are listed.
- (13345) ARAI, Y., 1999. [Lestes temporalis closes up wings in rain]. *Gekkan-Mushi* 346: 16-17. (Jap.). — (1233-2, Oaza Sueno, Yoriii-machi, Osato-gun, Saitama, 369-1205, JA).
L. temporalis perches with wings half open. When it starts raining, wings are closing, and get completely closed up in heavy rain. The reverse occurs when rainfall is diminishing and finally ceases. The phenomenon was photographically documented at Fukaya city, Saitama, in June 1999.

- (13346) BOHONAK, A.J., 1999. Effect of insect-mediated dispersal on the genetic structure of

postglacial water mite populations. *Heredity* 82(4): 451-461. — (Sect. Ecol. & Syst., Corson Hall, Cornell Univ., Itaka, NY 14853, USA).

The allozyme variation is analysed in ca 1100 individuals, pertaining to 9 spp. and 2 spp. complexes of NE Northamerican *Arrenurus* mites. These parasitize either nematocera or odon. (and individual spp. are almost 100% faithful to only one of these insect orders), while 3 spp. have lost the ability to parasitize insects. Mite dispersal is largely conditioned by that of the resp. host. There is some indication that the average heterozygosity increases with widely dispersing spp. However, a high degree of variation existed within each dispersal category: the odon. parasite (*A. planus*), thought to possess the highest dispersal ability, displayed only moderate levels of heterozygosity.

- (13347) BROCKHAUS, T. & J. HUTH, 1999. Die Libellenfauna im Grossschutzgebiet "Presseler Heidewald- und Moorgebiet" in Sachsen. *ArtenschutzRep.* 1999(9): 45-48. (With Engl. s.). — (First Author: An der Morgensonne 5, D-09387 Jahnsdorf/Erzgeb.).
40 spp. are listed for the Reserve (6800 ha), Saxony, Germany. The occurrence of *Leucorrhinia albifrons* and *L. pectoralis* is of particular interest.

- (13348) COLLIER, K.J., P.D. CHAMPION & G.F. CROKER, 1999. Patch- and reach-scale dynamics of a macrophyte-invertebrate system in a New Zealand lowland stream. *Hydrobiologia* 392: 89-97. — (Natn. Inst. Water & Atmospheric Res., P.O. Box 11-115, Hamilton, NZ).
Abundant growth of macrophytes is a common feature of streams in open lowland areas of New Zealand during summer, but the value of these to aquatic biota is poorly understood. The temporal dynamics of, and associations amongst, elements of a macrophyte-invertebrate system were studied in the Whakapipi Stream, North Island, to provide an improved information base for lowland stream management. The odon. are order-wise considered, and their biomass and numbers are stated for March, June, Sept. and Dec. In Dec. they made up 26.63% of biomass, though at other dates the values were ranging from 1.68 to 3.59%.

- (13349) DIETL, G. & G. SCHWEIGERT, 1999. Nusplinger Plattenkalk, eine tropische Lagune der Jura-Zeit. *Stuttgart. Beitr. Naturk.* (C) 45: 1-62. —

- (Abt. Paläont., Naturk. Mus., Rosenstein 1, D-70191 Stuttgart).
Includes passing references to the Odon.
- (13350) FERRERAS-ROMERO, M. & P.S. CORBET, 1999. The life cycle of *Cordulegaster boltonii* (Donovan, 1807) (Odonata: Cordulegasteridae) in the Sierra Morena mountains (southern Spain). *Hydrobiologia* 405: 39-48. — (Second Author: Crean Mill, Crean, St Buryan, Cornwall, TR19 6HA, UK).
The life cycle was studied for 5 consecutive yr, mainly by systematic sampling of larvae in a permanent upland stream, towards the southern part of this sp. range. The instar distribution during winter is that of a "spring species", in which larvae destined to emerge in the next spring are predominantly in the final instar. During larval development a hatching cohort divides into "slow" and "fast" components, which resp. complete development in 3 and 2 yr. the former component predominating. Signs of advanced metamorphosis (in the last larval instar) are confined to late winter and spring. Emergence is protracted, there being a long "tail" after most of the population has emerged, resulting in a long flying season.
- (13351) FORSTER, S., 1999. The dragonflies of Central America exclusive of Mexico and the West Indies: a guide to their identification. *Odonatol. Monogr.* 2: viii+141 pp. (ISBN 3-9804366-0-8). — (Orders to the Author: Kastanienallee 40a, D-38104 Braunschweig).
This is a collection of up-to-date identification keys to the more than 370 spp. known to occur in the mainland of Central America. The keys are supplemented with drawings, and brief descriptions of general appearance, behaviour and ecology of most of the genera. A checklist of spp., a glossary and the regional bibliography are also included. — The book is a useful orientation and identification tool for a region, for which similar works are almost lacking.
- (13352) HADEN, G.A., D.W. BLINN, J.P. SHANNON & K.P. WILSON, 1999. Driftwood: an alternative habitat for macroinvertebrates of a large desert river. *Hydrobiologia* 397: 179-186. — (Dept Biol., Northern Arizona Univ., P.O. Box 5640, Flagstaff, AZ 86011, USA).
The potential of driftwood as an alternative habitat for macroinvertebrates was examined in portions of 2 midorder streams, the Green and the Colorado R., within Canyonlands National Park, S Utah, USA. Predatory taxa, incl. *Argia* sp., were on driftwood the same as those on cobbles.
- (13353) HANEL, L., 1999. *Vážky Podblanicka – Dragonflies (Odonata) of the Podblanicko region (central Bohemia, Czech Republic)*. CSOP, Vlašim & Mus. Distr. Benešov, Benešov. 96 pp., 60 col. phot. excl., (24.0×16.5 cm), softcover, ISBN 80-86327-07-8. (Czech, with Engl. & Germ. s's). — (Author: Kladruby 33, CZ-25762 Kladruby-33).
An attractive, commercially available monograph on the regional fauna (47 spp.). For each sp. the description, habitat description, regional distribution map and a statement on the status in the Czech Republic are given, and a col. portrait is provided. The principal structural features are shown in 125 textfigs, therefore the book will serve as a convenient identification tool as well.
- (13354) HARRIS, M.A., B.C. KONDRATIEFF & T.P. BOYLE, 1999. Macroinvertebrate community structure of three prairie streams. *J. Kans. ent. Soc.* 72(4): 402-425. — (First Author: Illinois Nat. Hist. Surv., 607 East Peabody Dr., Champaign, IL 61820, USA).
The study was conducted at the relatively unmodified Niobrara R. (W Nebraska; 23 odon. spp. listed), and at the extensively modified Cub Creek (SE Nebraska; 6 spp.) and Pipestone Creek (SW Minnesota; 7 spp.); 2 sampling sites were established at each stream. Macroinvertebrate density, taxa, diversity and functional group composition were analyzed from quarterly quantitative samples.
- (13355) HAYNES, A., 1999. The long term effect of forest logging on the macroinvertebrates in a Fijian stream. *Hydrobiologia* 405: 79-87. — (Govt Bldgs, P.O. Box 2431, Suva, Fiji).
The species richness and abundance of macroinvertebrates were assessed in 2 similar, adjacent streams, the Nabukavesi and Wainikovu creeks, Viti Levu, Fiji at 2-month intervals for 3 years. The Nabukavesi catchment has been previously logged, hence subjected to suspended sediment loads and to sediment and grit deposition on its substrate. Rain forest in the Wainikovu catchment had not been logged. 6 *Nesobasis* spp. were evidenced in

- the Wainikovu but only 3 of these occur in the Nabukavesi creek. Species names are not stated.
- (13356) HOLZINGER, W.E., H. EHMANN & M. SCHWARZ-WAUBKE, 1999. Rote Liste der Libellen Kärntens (Insecta: Odonata). *Naturschutz Kärnten* 15: 497-507. — (First Author: Okoteam, Inst. Faunistik u. Tierökol., Bergmannsgasse 22, A-8010 Graz; — Second Author: Hirschenhohstr. 25, A-5450 Werfen).
60 spp. are so far known to occur in Carinthia, Austria, but with ca 900 records (667 after 1980) the fauna is considered inadequately explored. Here, a preliminary checklist is given of all spp., with annotations on their general status and habitat preferences in Carinthia. Those considered appropriate are redlisted in the usual categories. For 8 spp. distribution maps are also provided.
- (13357) *IDF-REPORT*. Newsletter of the International Dragonfly Fund (ISSN 1435-3393), Vol. 2, No. 2 (Dec. 1999). — (c/o Dr M. Lindeboom, Landhausstr. 10, D-72074 Tübingen). *Reinhardt, K.*: Aspects of the dragonfly fauna of eastern Kazakhstan (pp. 1-11); — *Schorr, M.*: Bilder aus dem Leben des Odonatologen Dr. Erich Schmidt (1890-1969) (pp. 12-33); — *Reichenschaftsbericht über das Geschäftsjahr 1999* (pp. 34-36).
- (13358) JULKA, J.M., H.S. VASISHT & B. BALA, 1999. Distribution of aquatic insects in a small stream in Northwest Himalaya, India. *J. Bombay nat. Hist. Soc.* 96(1): 55-63. — (First Author: Zool. Surv. India, Solan-173212, H.P., India).
In a stream in the Barog Hills, Solan distr., Himachal Pradesh, India, the benthic insect fauna was studied during 1989-1991. *Bayadera indica* occurred on gravel-rubble and on loose stones, and the non-identified gomphids on gravel-rubble; both at an approx. alt. of 1500 m. The relative densities are stated.
- (13359) KANOU [= KANO], K., 1999. Behavior of male catching female in connected oviposition of *Cercion c. calamorum* (Ris) [sic!]. *Nature & Insects* 34(11): 31-32. (Jap., with Engl. title). — (No. 601, 19-17, Koishikawa 5-chome, Bunkyo-ku, Tokyo, 112-0002, JA).
A detailed description (with photos) of a ♂ grasping a ♀ while she was ovipositing in tandem. The invader had bitten the original ♂, inducing the latter to release. The invader then succeeded in getting in tandem, and the ♀ continued ovipositing for another 15 s, whereafter the tandem pair took off.
- (13360) KANOU [= KANO], K., 1999. [Dragonflies in amber]. *Gekkan-Mushi* 345: 5-7. (Jap.). — (No. 601, 19-17, Koishikawa 5-chome, Bunkyo-ku, Tokyo, 112-0002, JA).
Brief descriptions and col. photographs of 3 unidentified Zygopt. specimens from Dominican and Russian amber, in Kuji Amber Mus., Kuji, Iwate, Japan.
- (13361) KISHI, K. & K. KIMURA, 1999. [Stylurus nagoyanus recorded from Kanagawa pref.] *Gekkan-Mushi* 346: 29. (Jap.). — (First Author: A101, Mistral Shonan, 488-1, Ishikawa, Fujisawa, Shizuoka, 252-0815, JA).
1 ♂, Fujisawa, 27-IX-1997. First record for Kanagawa pref.
- (13362) KOJO, T., 1999. [Mating and oviposition in *Anax guttatus*]. *Nature & Insects* 34(13): 13. (Jap.). — (3-5-1-9-108 Sakurada, Washimiya-machi, Kitakatsushika-gun, Saitama, 340-0203, JA).
Patrolling along the shore of a pond in Saitama pref., Japan a ♂ caught a ♀ above water, and soon they formed a copula in flight (3-XI-1998). They made a circle around the pond, then perched on a twig of a tree on the bank (ca 5 m above ground, 8 m above water). The ♀ moved slightly, but the ♂ remained motionless for 53 min. Then the ♂ started moving its wings, after a min. they've got in tandem and took to the water, where they separated. The ♀ circled the pond in search for an oviposition site, followed by the ♂ about 1 m behind. When the ♀ started to oviposit, she was guarded by the ♂ for ca 10 min. then the ♂ took off, while the ♀ continued to oviposit for another 18 min. before she flew away.
- (13363) MATSUKI, K. & T. YOKOYAMA, 1999. On the number of dorsal and lateral spines of *Gomphus postocularis* larvae collected in Sapporo city, Hokkaido. *Nature & Insects* 34(11): 27-30. (Jap., with Engl. title). — (First Author: 1575-14, Hasama-cho 3-chome, Funabashi, Chiba, 274-0822, JA).
37 ♂ and 57 ♀ from Nashioka Park, Sapporo were examined. In 92.6% of exuviae, a dorsal spine was

- present on the 9th segm. only. This is a common feature of NE populations, but the individuals from western localities have dorsal spines on the 8th and 9th segm. In NE there are lateral spines on segm. 7-9, while in the W a spine appears on the 6th segm. as well.
- (13364) MATTILA, K., 1999. Hyönteistiedonannot 1998 – [Insect records 1998]. *Diamina* 8: 36-38. (Finn.). – (Lukonmäenkatu 18 B 13, FIN-33700 Tampere).
Some Finnish records for 5 odon. spp., made by members of the Tampere Ent. Soc., are listed.
- (13365) *ODONATOLOGICAL MONOGRAPHS* (ISSN 1434-1123), Vol. 2 (1999). Published by Dr G. Rehfeldt (Roseggerweg 41, D-38304 Wolfenbüttel). Förster, S.: The dragonflies of Central America exclusiv of Mexico and the West Indies (viii+141 pp.) for abstract see OA 13351; for the first vol. of the serial see OA 10305.
- (13366) PIX, A., 1999. *Im Reich der Libellen*. Krone-Verlag, Leichlingen. 192 pp. Hardcover, 25×31 cm. ISBN 3-933241-27-8. – Price: DEM 25.- net. – (Publishers: Waldstr. 2a, D-42799 Leichlingen). A beautiful general book on German dragonflies, with emphasis on col. photographs of spp. and habitats. It is not a work for identification and it has no bibliographic references. A very personal, at places somewhat emotional style makes it delightful reading. Some statements on ecology and behaviour will be of interest to a professional worker as well.
- (13367) POPE, R.J., A.M. GORDON & N.K. KAUSHIK, 1999. Leaf litter colonization by invertebrates in the littoral zone of a small oligotrophic lake. *Hydrobiologia* 392: 99-112. – (First Author: Dillon Consulting, Suite 130, 10691 Shellbridge Way, Richmond, BC, V6X 2W8, CA). The colonization of deciduous leaf litter by aquatic invertebrates was studied at Scott Lake in Algonquin Park, Ontario, Canada. The invertebrate community was dominated by chironomids and to a lesser extent by oligochaetes. The odon. ("Coenagrion/Enallagma") were rare and are not further considered.
- (13368) SATOH, T., 1999. [*Calopteryx japonica* taken at Ohmi-machi, Niigata pref.]. *Gekkan-Mushi* 346: 34. (Jap.). – (Kashiwazaki Munic. Mus., 8-35, Midori-cho, Kashiwazaki, Niigata, 945-0841, JA).
3 ♂ and 1 ♀ are placed on record from 2 localities in Ohmi-machi (2-VII-1994, 29-VI-1997, 7-VIII-1998). Since 1997 the sp. was considered almost extinct in Niigata pref.
- (13369) SHIEH, S.-H., B.C. KONDRATIEFF & J.V. WARD, 1999. Longitudinal changes in benthic organic matter and macroinvertebrates in a polluted Colorado plains stream. *Hydrobiologia* 411: 191-209. – (First Author: Dept Ent., Nat. Taiwan Univ., Taipei-106, Taiwan).
The changes were examined at 6 sites in the plains section of the Cache la Poudre R., north central Colorado, USA. In a table showing relative composition of the total macroinvertebrate fauna at each sampling site, "Coenagrionidae" and Ophiogomphus severus are listed.
- (13370) SHIMIZU, N., T. YAGI & S. UGAI, 1999. [*Hemianax ephippiger* photographed in Hamamatsu city, Shizuoka pref.]. *Gekkan-Mushi* 346: 8. (Jap.). – (First Author: 2-6-4, Meiji, Minami-ku, Nagoya, 457-0861, JA).
2 individuals were photographed after a typhoon. These are probably the first field photographs of this sp. in Japan.
- (13371) TAKASAKI, Y., 1999. [An unusual oviposition attempt in *Pantala flavescens*]. *Gekkan-Mushi* 346: 41-42. (Jap.). – (1-14, Fujimori, Meito-ku, Nagoya, 465-0026, JA).
♀♀ of 4 tandem pairs were found beating by abd. tips on the pavement of a terrace in Toyota, Aichi pref., touching wet and dry places alike. No oviposition was noticed at the adjacent pond.
- (13372) TAKETO, A., 1999. [Changes in odonate fauna of Ishikawa prefecture during 1957-1999]. *Tokkuribachi* 66: 2-7. (Jap., with Jap. nomenclature). – (1-1-19 Ishibiki, Kanazawa, 920-0935, JA).
62 spp. were listed for the prefecture (Japan) in 1957. At present, 11 of these became extinct or their populations significantly decreased. On the other hand, the records of 5 spp. seem to have recently increased.
- (13373) TAKETO, A., 1999. [Insects of 1998]. *Tokkuribachi* 66: 7-9. (Jap., with Jap. nomenclature). – (1-1-19 Ishibiki, Kanazawa, 920-0935, JA).

- 11 odon. spp. are listed as noticeable in Ishikawa pref. in 1998.
- (13374) TANAKA, H., 1999. [Mature *Polycanthagyna melanictera* (♀) and *Pantala flavescens* with shining wings]. *Gekkan-Mushi* 346: 33-34. (Jap.). — (1-3-10-705, Kotobuki-cho, Fuchu, Tokyo pref., 183-0056, JA).
Some circumstantial evidence on, and col. phot. of specimens from resp. Lake Sayama (Saitama pref.) and Fuchu; VIII-1998.
- (13375) THORPE, T. & B. LLOYD, 1999. The macroinvertebrate fauna of St Lucia elucidated by canonical correspondence analysis. *Hydrobiologia* 400: 195-203. — (C.E.H.E., Univ. Surrey, Guildford, GU2 5XH, UK).
St Lucia is the second largest of the Windward Isls in the Lesser Antilles. 13 rivers used for water supply were monitored. The "Libellulidae" are shown in a CCA scatter plot of invertebrate families and spp., but no reference to the odon. is made in the text.
- (13376) TSURUMAKI, T., 1999. [Recent records of *Anotogaster sieboldii* and *Sieboldius albardae* from Itabashi-ku, Tokyo pref.]. *Gekkan-Mushi* 346: 19-20. (Jap.). — (9-8-302, Sakae-cho, Itabashi-ku, Tokyo, 173-0015, JA).
Prior to the urbanization in the 1960s, the 2 spp. were common in the area. Some 1996-1999 evidence is placed on record here.
- (13377) VAN DER MADE, J., 1999. *De Vlinderstichting jaarverslag 1999* — [Annual Report of the Dutch Butterfly Conservation, 1999]. De Vlinderstichting, Wageningen. ii+34 pp. (Dutch, with Engl. s.). — (P.O. Box 506, NL-6700 AM Wageningen).
It gives a concise outline of task division between the Foundation of Dutch Butterfly Conservation, the Europ. Invertebrate Survey (EIS-Nederland) and the Netherlands Odonatol. Soc. The noteworthy 1999 faunistic discoveries are mentioned (*Coenagrion armatum*, *Gomphus flavipes*, *Soma-tochlora flavomaculata*), and the achievements in the field of the national odon. monitoring project are stated.
- (13378) VINGERHOEDS, L., H. TER HUURNE & H. BLAAUW, 1999. *Libellen inventarisatie in natuurgebieden in de omgeving rond Breda in 1998* — [Dragonfly inventarisation in nature reserves in the surroundings of Breda in 1998]. Insectenwerkgroep KNNW, Afd. Breda. ii+13 pp. (Dutch). — (First Author: J. Helleputtestraat 20, NL-4827 CA Breda).
Annual report on the observations in the reserves of the State Forestry Service (Staatsbosbeheer), Society of Nature Monuments (Vereniging Natuurmonumenten) and the Brabants Landschap; — Noord Brabant prov., the Netherlands. — Similar reports are available also for the period 1995-1997. — See also OA 13469.
- (13379) WOLFRAM, G., K. DONABAUM, M. SCHAGERL & V.A. KOWARC, 1999. The zoobenthic community of shallow salt pans in Austria: preliminary results on phenology and the impact of salinity on benthic invertebrates. *Hydrobiologia* 408/409: 193-202. — (First Author: Donabaum & Wolfram OEG, Zentagasse 47/3, A-1050 Wien).
A 3-yr project on the benthic community of shallow saline lakes in the Seewinkel area, E Austria has been carried out since 1996. Most of the salt pans are very shallow (mean depth mostly < 0.5 m), highly alkaline and inorganically turbid. Salinity ranged from 1.6 to 4.5 g/l⁻¹ in 1996-1997, but reached the values of >50 g/l⁻¹ in the dry summer of 1998. Mean odon. abundances ranged from 169 to 22 in resp. 1996 and 1997 (stated order-wise only).
- (13380) YAMAMOTO, Y., 1999. [A parasitized male *Anax parthenope julius*]. *Nature & Insects* 34(13): 17. (Jap.). — (Nizigaoka 2-7-6-704, Meito-ku, Nagoya, 465-0078, JA).
A white, cottonlike structure was attached to its prothorax. It is assumed to be referable to an unidentified parasite. A phot. is included.
- (13381) YAMAMOTO, Y., 1999. [Ceriagrion melanurum predating on *Nannophya pygmaea*]. *Gekkan-Mushi* 345: 26-27. (Jap.). — (Nizigaoka 2-7-6-704, Meito-ku, Nagoya, 465-0078, JA).
A mature *Ceriagrion* ♀ hovered briefly over a territorial *Nannophya*, grasped its prothorax and moved into adjacent grass, where the victim was devoured within a minute. After a short rest, *Ceriagrion* took off.
- (13382) ZHANG, J., 1999. Aeschnidiid nymphs

from the Jehol biota (latest Jurassic-Early Cretaceous), China, with a discussion of the family Aeschniidae (Insecta, Odonata). *Cretaceous Res.* 20: 813-827. — (Nanjing Inst. Geol. & Palaeont., Acad. Sinica, 39 East Beijing Rd, Nanjing-210008, Jiang prov., P.R. China).

Undoubted fossil Aeschniidae larvae (Aeschnioidae, Anisoptera) are identified and described and their phylogenetic relationships and biocological characteristics are pointed out. The larvae discovered previously in China, Mongolia and Russia, and considered to be aeschniids, are unrelated to this group. All 9 Chinese spp. in 6 gen. can be merged into a single sp., *Aeschnidium heishankowense*. It can be linked with the spp. from the Lower Tithonian of Germany. The geological age of the oldest strata bearing fossil larvae is debatable; it could be latest Jurassic rather than Early Cretaceous. — See also OA 13383.

- (13383) ZHANG, J.-F., 1999. Restudies in aeschniids (Odonata, Insecta). *Palaeoworld* 11: 150-168, pls 1-6 excl. (Chin., with Engl. s.). — (Nanjing Inst. Geol. & Palaeont., Acad. Sinica, 39 East Beijing Rd, Nanjing-210008, Jiang prov., P.R. China).

The contents of the paper is largely similar to that given in OA 13382. *Yixianogomphus* Lin (= *Archaeogomphus* Lin), *Pseudogomphus* Lin, *Dissurus* Hong, *Neimenggolomphus* Hong, *Sinaeschnidia* Hong and *Hebeiaeschnidia* Hong are subjective junior synonyms of *Aeschnidium* Westw., and all can be merged into a single sp., *A. heishankowense* Hong comb. n. The features, distribution and age of the latter are discussed.

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- (13384) ARGIA. The news journal of the Dragonfly Society of the Americas (ISSN 1061-8503), Vol. 12, No. 2 (20 July 2000). (c/o Dr & Mrs T.W. Donnelly, 2091 Partridge Lane, Binghamton, NY 13903, USA).
[Signed articles:] *Daigle, J.J. & K.J. Tennesen*: Codes Cove cook-down! (pp. 1-2; Great Smoky Mts Natn. Park, with records); — *Donnelly, N.*: Northeast DSA meeting in Sterling (p. 2-3; Orange Co., NY, with records); — *Rose, J.S.*: Dragonfly days (13-14 May, in the Rio Grande Valley) (p. 3; with records); — *Lederer, P.*: The travelling Ode Show (pp. 3-6); — *Harp, G.L.*: New Zygoptera

state records (p. 6); — *Behrstock, R.A.*: First Texas record of Amethyst dancer (*Argia pallens*) Calvert, 1902 (pp. 6-7); — *Ramos Hernández, J.M.*: Predation by the bat *Macrotus waterhousei* minor (Chiroptera: Phyllosomatidae) on dragonflies (pp. 7-8); — *Bocanegra, O.R.*: An interesting county record for Texas (pp. 8-9); — *Valley, S.*: Some interesting observations of *Tanypteryx hageni* (p. 9); — *Daigle, J.J.*: Meet the beetles! (pp. 9-10; Bolivia, with odon. records); — *Bright, E. & K.L. Cronk*: Perigomphus: a new county record for Honduras (pp. 10-11); — *Beckemeyer, R.*: R.J. Tillyard and the medium margery: dragonflies and seances (pp. 11-13); — *O'Brien, M.*: A brief history of odonatologists at the University of Michigan Museum of Zoology (pp. 13-16); — *Dunkle, S.*: [Book review] Florida's Fabulous Insects, by Mark Deyrup (pp. 16-17). — The DSA (revised) *By-Laws* appear on pp. 17-18.

- (13385) ARTMEYER, C., 2000. Untersuchungen zur Libellenfauna (Odonata) ausgewählter Stillgewässer in der Emsaue des Kreises Steinfurt. *Natur Heimat, Münster* 2000 (1): 25-32. — (Philippstr. 16, D-48149 Münster).
33 spp. are listed from the Ems oxbow area at Steinfurt, Münsterland, Germany. The occurrence of *Aeshna affinis*, *Crocothemis erythraea* and *Sympetrum pedemontanum* is of particular interest.

- (13386) *ATROPOS* ["the UK's premier journal for active Lepidoptera and Odonata enthusiasts"] (ISSN none), No. 11 (Aug. 2000). — (c/o M. Tunmore, 36 Tinker Lane, Meltham, Huddersfield, W Yorks, HD7 3EX, UK).

[Odon. articles:] *Nelson, B.*: Dragonflies of the Burren and surrounding areas (p. 9); — *Parr, A.*: An annotated list of the Odonata of Britain and Ireland (pp. 10-20); — *Insect Line*: Insects reported during the first half of 2000 (pp. 40-43).

- (13387) BAAIJENS, A., 2000. [Excursie Zeeuws-Vlaanderen]. *Zeeuwse Prikkebeen* 8(2): 20-22. (Dutch). — (Grote Abeele 40, NL-4388 VW Oost Souburg).

A report on the field trip to Zeeland Flandres, the Netherlands, 8-VII-2000, with a list of 14 odon. spp., incl. *Crocothemis erythraea* and *Sympetrum fonscolombii*.

- (13388) [BAAIJENS, A.], 2000. Spectaculaire

- waarnemingen van libellen – [Spectacular dragonfly records from Zeeland prov., the Netherlands]. *Zeeuwse Prikkebeem* 8(2): 23-24. (Dutch). – (Grote Abeele 40, NL-4388 VW Oost Souburg).
- New spp. for the province are *Leucorrhinia dubia* (several specimens of both sexes, from several localities) and *L. pectoralis* (Schouwen, 8-VI-2000). Of interest are also new localities for *Sympetma fusca*.
- (13389) BAL, B., 2000. L'inventaire des odonates de Haute-Savoie. *Bull. romand Ent.* 18(1): 59-64. – (BP 66, F-74963 Cran-Gevrier).
 Considerations on the odon. occurrence and distribution in the Haute-Savoie, France (69 spp.), without a checklist.
- (13390) BIS, B., A. ZDANOWICZ & M. ZALEWSKI, 2000. Effects of catchment properties on hydrochemistry, habitat complexity and invertebrate community structure in a lowland river. *Hydrobiologia* 422/423: 369-387. – (First Author: Dept Appl. Ecol., Cent. Ecohydrobiol. Stud., Univ. Łódź, PO-90237 Łódź).
 The objective was to quantify the relationship between taxonomic and functional parameters of macroinvertebrate assemblages and landscape attributes of agricultural catchment on the Grabia R., Poland. *Calopteryx splendens* is the sole odon. sp. considered.
- (13391) BRACHYTRON (ISSN none), Vol. 4, No. 1 (July 2000). (Dutch, larger papers with Engl. s's). – (c/o W.J.A. Hoeffnagel, Krekemeent 72, NL-1218 ED Hilversum).
 [Wasscher, M. & F. Bos], *Boyeria cretensis* (cover p. 2; photographs of a bred adult ♂); – Edelaar, P.: Rate dragonfly species in the Netherlands in 1997 (pp. 3-12); – Termaat, T.: Survey of new riverine habitats of *Gomphus flavipes* in the Netherlands in 1999 (pp. 13-17); – Dingemans, N.J.: Colour polymorphism in *Ceriatrigon tenellum*: population differences in relative abundance of andromorphic females (pp. 18-24); – Tromp, J. & M. Wasscher: Once in a century: the second record of *Sympetrum meridionale* in the Netherlands (pp. 25-27); – Kalkman, V.J., P. Edelaar & M.A.A.M. van Trigt: Breeding habitat of *Somatochlora flavomaculata* in the Netherlands (p. 28); – Groenendijk, D.: [Book review] Corbet,
- P.S., 1999, Dragonflies: behaviour and ecology of Odonata (pp. 29-30).
- (13392) BROCKHAUS, T., 2000. Aktualisierte und korrigierte Fassung des kommentierten Verzeichnisses der Libellen (Odonata) des Freistaates Sachsen. *Mitt. sächs. Entomol.* 49: 8-14. – (An der Morgensonne 5, D-09387 Jahnsdorf/Erzgeb.). A commented list of 67 spp. hitherto recorded from Saxony, E Germany; with bibliography.
- (13393) BROCKHAUS, T., 2000. Zur Geschichte der sächsischen Libellenkunde. *Mitt. sächs. Entomol.* 49: 15-21. – (An der Morgensonne 5, D-09387 Jahnsdorf/Erzgeb.).
 The history of odonotol. exploration of Saxony, E Germany is traced from 1867 to present; with bibliography.
- (13394) BRUNNER-GARTEN, K., 2000. Lernvermögen entscheidet über den Erfolg: Frosch kontra Libelle. *Galathea* 16(2): 71. (With Engl. s.). – (Kellerstr. 9 d, D-90530 Wendelstein).
 An incidental observation. A frog, *Rana esculenta*, swimming at the water surface, made several attempts to grasp an ovipositing *Libellula depressa*. It then changed tactics: it approached the dragonfly under the surface, swimming markedly slowly and cautiously, attacked when the dragonfly was exactly above – and was successful.
- (13395) CORBET, P.S., [Ed.], 2000. *Current topics in dragonfly biology*, Vol. 6: [Biology of the genus *Sympetrum* in the Americas, with special reference to seasonality and reproductive behaviour]. Colgate Univ., Hamilton/NY. iv+33 pp. – (c/o Dr V.E. McMillan, Dept Biol., Colgate Univ., 13 Oak Dr., Hamilton, NY 13346-1398, USA).
 A transcript of discussion recorded during the Plenary Session of the 1st Symp. WDA, 15 July 2000. – Vols 1-5, published by SIO (see OA 4563, 6436, 6472, 7495, 8533), are available from the Eds of *Odonatologica*, at NLG 75.- net the set.
- (13396) [CORBET, P.S.] WILDERMUTH, H., 2000. [Buchbesprechung]. Corbet, P.S., 1999, Dragonflies [...]. *Vjschr. naturf. Ges. Zürich* 145(1): 4. (Germ.). – (Haltbergstr. 43, CH-8630 Rüti).
 More than merely a comprehensive book review of Corbet's milestone work, as described in OA 12810. An unabridged Engl. translation was

- published in *Odonatol. Abstr. Serv.* 6[2000]: 49-50. In the introductory paragraphs the reviewer gives an excellent biological characterisation of the Order and a likewise superb outline of its importance in the research in various fields of biology and environment conservation.
- (13397) COSTA, J.M., A.B.M. MACHADO, F.A.A. LENCIONI & T.C. SANTOS, 2000. Diversidade e distribuição dos Odonata (Insecta) no estado de São Paulo, Brasil. 1. Lista da espécies e registros bibliográficos. *Publções avuls. Mus. nac. Rio de J.* 80: 3-27. (Port., with Engl. s.). – (First Author: Depto Ent., Mus. Nac., UFRJ, Quinta da Boa Vista, São Cristóvão, BR-20940-040 Rio de Janeiro, RJ). An annotated list is presented of 251 spp. known to occur in the state of São Paulo, Brazil, along with the complete regional bibliography, list of topographic positions and altitudes of the localities, and brief family summaries. In the introductory chapter, history of odonatol. exploration of the state (1854 to present) is outlined.
- (13398) COUTEYEN, S. & M. PAPAIZIAN, 2000. Contribution à la connaissance des odonates de l'île de la Réunion. 1. Présence de *Gynacantha bispina* Rambur, 1842 (Odonata, Aeshnidae). *Entomologiste* 56(3): 127-143. (With Engl. s.). – (First Author: 1888, ch. Nid Joli, F-97430 Le Tampon, La Réunion). A checklist is given of 16 spp., incl. *Gynacantha bispina*, known to occur on the island of Réunion. *G. radama* has been previously erroneously listed as a member of the local fauna. The 2 *Gynacantha* spp. are described and their structural features are illustrated.
- (13399) CZACHOROWSKI, S. & P. BUCZYNSKI, 2000. Zagrożenia i ochrona owadów wodnych w Polsce – Threats to and protection of water insects in Poland. *Wiad. ent.* 18 (Suppl. 2): 95-120. (Pol., with Engl. s.). – (Second Author: Dept Zool., Inst. Biol., Maria Curie-Skłodowska Univ., Akademicka 19, PO-20-033 Lublin). The information on threats to aquatic insects in Poland is summarized and discussed. A comprehensive section on the odon. is included. It is emphasized, generally the odon. are threatened in Poland to a lesser extent than in W Europe. Some protective measures are defined.
- (13400) DE JONG, T., 2000. Poelen vol libellen. – Ponds with dragonflies. *Levende Nat.* 101(4): 127-132. (Dutch, with Engl. s.). – (Viridis, Rijnlaan 25, NL-4105 GS Culemborg). Since 1990, a few hundred ponds have either been restored or newly created in the eastern part of the prov. of Utrecht, the Netherlands. Their importance as odon. breeding places is described and discussed. A systematic analysis of their features revealed that a good dragonfly pond should have a surface of at least 100 m², a minimum depth of 0.5 m, a sloping bank and plenty of sunlight.
- (13401) DE VOS, D., 2000. Libellen thuis in twee werelden – [Dragonflies at home in two worlds]. *Dier* 80(4): 23-26. (Dutch). – (The paper and a dragonfly poster available free from Redactiesecretariaat Dier, P.O. Box 85980, NL-2508 CR Den Haag). A general article on dragonfly biology.
- (13402) DENAC, D., S. STRGULC & A. VREZEC, 2000. *Wetland shadow list: Slovenia*. Prepared by Bird Life Slovenia (DOPPS) for World Wildlife Fund (WWF). DOPPS, Ljubljana. x+189 pp. – (DOPPS, Žibertova ul. 1, SI-1000 Ljubljana). *Ophiogomphus cecilia* is listed for the "Drava" Important Bird Area (IBA), and the Reka R. (Trbonje nr Vuzenica), Slovenia.
- (13403) DEYRUP, M. [text] & B. KENNEY [photographs], 2000. *Florida's fabulous insects*. World Publications, Tampa/FL. 168 pp., (30.2×22.6 cm), softcover, ISBN 0-911977-14-7. – Price: US\$ 16.95 net. – (Publishers: P.O. Box 24339, Tampa, FL 33623, USA). The Lepidoptera are omitted. Directed at general reader and using non-taxonomic nomenclature only, the emphasis of the book clearly is on photographs. Some of the 54 of those of adult and larval odon. (pp. 6-25) are sublime though, unfortunately, some of the others appear posed, therefore somewhat misleading as to the usual perching sites, posture, etc. Several spp. are depicted with their prey, hence representing valuable documents, particularly so where the prey is unusual, e.g. *Tramea onusta* devouring a honeybee, or an *Erythemis simplicicollis* ♀ in the act of cannibalism. The style of the text is very personal, the scope adequate for a nice introduction into Florida's odon. life. Only 2 taxonomic family names

- are mentioned, that of Aeshnidae is wrongly spelt.
- (13404) DUNKLE, S., 2000. *Eusynthemis tenera* Theischinger, ♂. *Linz. biol. Beitr.* 32(1): cover phot. – (Dept Biol., Collin Co. Community Coll., 2800 E. Spring Creek Pkwy, Plano TX 75074, USA). Col. phot., illustrating also the paper listed in *OA* 13464.
- (13405) EDA, S., 2000. Annual review on entomology for 1999 in particular insect groups: dragonflies. *Gekkan-Mushi* 351: 58-67. (Jap., with Engl. title). – (3-4-25, Sawamura, Matsumoto, 390-0877, JA).
A review of the Japanese achievements, which include 16 publications on taxonomy and morphology, 117 on faunistics, 49 on ecology and behaviour, 7 on conservation, 7 on other topics, and 8 book reviews. The annual meeting of the Japanese Society for Odonatology is recorded by names and a group phot. of the participants.
- (13406) ENGLUND, R.A., D.A. POLHEMUS & D.J. PRESTON, 2000. Assessment of the impacts of rainbow trout predation on native aquatic invertebrate species within Kōke'e State Park streams, Kaua'i, Hawai'i. *Bishop Mus. tech. Rep.* 18: iv+125 pp. – (Dept Ent., Bishop Mus., 1525 Bernice St., Honolulu, HI 96817-2704, USA).
All streams sampled were found to have large numbers of native aquatic insect taxa. Statistical tests indicate native aquatic insect diversity was not significantly influenced by the presence or absence of rainbow trout within a stream. This applies to the endangered *Megalagrion* spp. as well. – For the impact of introduced poeciliid fish on *Megalagrion*, see *OA* 12941.
- (13407) *ERJAVECIA*. [Newsletter of the Slovene Odonatological Society] (ISSN 1408-8185), No. 9 (30 Apr. 2000). (Slovene). – (c/o M. Bedjanič, Fram 117/a, SI-2313 Fram).
The feature article, by B. Kiauta (pp. 1-9), is devoted to the "Nestor of insect faunistics in Slovenia", Ferd. J. Schmidt (1791-1878). Records from Šalovci (Slovenia) are presented by A. Šalamun (pp. 9-10), and those from "Kopački Rit Nature Park" (Croatia) by M. Bedjanič (pp. 12-16). Notes on *Hemianax ephippiger* (pp. 20-21), *Brachytron pratense* (pp. 21-22; both by M. Bedjanič), *Sympetrum flaveolum* (p. 22) and on *S. depressiusculum* (pp. 22-23; both by A. Šalamun) appear in the standard section, as introduced with the previous issue (cf. *OA* 13078). U. Červek (pp. 10-12) reports on the 19th Annual Meeting of the German Odonatol. Soc. (GdO), and A. Škvarč (pp. 16-19) is giving detailed information on the 7 field workshops to take place in 2000. Nos 303-332 are added to the Slovene odonatol. bibliography (pp. 26-28; by M. Bedjanič).
- (13408) GEENE, P., 2000. *Pyrrhosoma nymphula* in Zeeland, 1999. *Zeeuwse Prikkebeen* 8(1): 16-18. (Dutch). – (Halve Maanstraat 57, NL-4356 BN Oostkapelle)
The 1999 records for Zeeland prov., the Netherlands, with habitat descriptions and map.
- (13409) GEENEN, S., K. JORDAENS, M. DE BLOCK, R. STOKS & L. DE BRUYN, 2000. Genetic differentiation and dispersal among populations of the damselfly *Lestes viridis* (Odonata). *Jl N. Am. benthol. Soc.* 19(2): 321-328. – (First Author: Dept Biol., Univ. Antwerp, Groenenborgerlaan 171, B-2020 Antwerpen).
Genetic differentiation was investigated among 8 populations in permanent ponds in N Belgium by means of allozyme electrophoresis and isoelectric focusing, and estimated levels of gene flow using F-statistics. In addition, a capture-mark-recapture experiment was performed to estimate direct levels of gene flow. The aim was to test whether *L. viridis* populations represented a single, large panmictic population or formed a series of demographically isolated populations, which may be defined as appropriate management units (MU). None of the marked individuals moved among the ponds, indicating a strong fidelity of adults to their breeding pond. Only 1 population was genetically strongly differentiated. Absence of adult dispersal and genetic homogeneity between ponds suggest substantial teneral dispersal. Large heterozygote deficiencies at 2 loci (*Fdh* and *Est*) were observed. Significant differences in allele frequencies among ponds suggest that the populations may consist of >1 MU. Conservation management plans should, therefore, take into consideration the presence of several MUs in this sp.
- (13410) GODDARD, D., 2000. Derbyshire dragonfly & damselfly report 1997. *J. Derbyshire ent. Soc.* 139 (Spring): 2-5. – (Author's address not

- stated).
Records and annotations for 19 spp. The latest seasonal sighting of adult *Sympetrum striolatum*: 22-XI-[1997], Drakelow, Derbys., UK.
- (13411) *GOMPHUS*. Mededelingsblad van de belgische libellenonderzoekers – Bulletin de liaison des odonatologues belges (ISSN 0772-4691), Vol. 16, No. 1 (Aug. 2000). (Dutch & Fr., with Engl., Fr. & Dutch s's). – (c/o G. de Knijf, Ploegstraat 33, B-9050 Gent).
[Vol. 15, No. 4 not published] – *Goffart, P. / Taily, M.*: Editorial (pp. 1-3); – *Reynigers, J.*: Distribution of dragonflies in "Klein Brabant" (province of Antwerp) (pp. 5-36); – *Mardulyn, H.*: Evolution des populations d'odonates dans la réserve naturelle du Bec du Feyi, en Ardenne (pp. 37-48); – *Stoks, R.*: *Libellula fulva* in Flanders in the '90: advance or status quo? (pp. 49-60); – *Paternoster, T.*: Implantation récente du *Sympetrum* à nervures rouges (*Sympetrum fonscolombii* Selys, 1840) dans le bassin de la Haine (pp. 61-68); – *Vlietnick, K.*: Census of the odonate fauna of the Boerenven in 1999 in the Kalmthoutse heide (pp. 69-74); – *Soors, J.*: *Sympetrum pedemontanum* in Flanders (pp. 75-84); – *Goffart, P.*: Compte-rendu des observations d'espèces prioritaires d'odonates en Wallonie durant la saison 1999, dans le cadre du programme d'Inventaire et Surveillance de la Biodiversité (ISB) (pp. 85-98); – *Lafontaine, R.-M. & P. Goffart*: Compte-rendu de l'excursion du 18 juillet 1999 en Gaume [...] (pp. 106-110); – *Goffart, P.*: Compte-rendu de l'excursion au Plateau des Tailles du dimanche 19 septembre 1999 (pp. 110-112).
- (13412) GOTOH, K., 2000. [Aberrant forms of *Calopteryx atrata*]. *Gekkan-Mushi* 352: 52-53. (Jap.). – (Heiwa-cho, Kohnan 7-ku, Ube, 759-0207, JA). A ♂ with half transparent forewings, and another ♂ with partly transparent wings are shown on col. photographs; – Shuho-cho, Yamaguchi pref., 26-IX-1999.
- (13413) GRAND, D., 2000. Influence d'une éclipse de soleil sur une population d'odonates. *Bull. romand Ent.* 18(1): 84-91. – (Impasse de la Voûte, F-69270 St-Romain-ou-Mont-d'Or). Observations on the odon. behaviour during the solar eclipse of 11-VIII-1999 at a locality 15 km NE of Lyon, France, confirming the previously published evidence by various authors. – Cf. also OA 12835.
- (13414) GROŠELJ, A. & E. BENČIČ, 2000. *Krajinski park Dragonja – [Dragonja Landscape Park]*. Uprava RS za varstvo narave, Ljubljana. ii+18 pp. ISBN 961-6324-08-3. (Slovene, with Engl. & Ital. Introduction) – (c/o M. Bedjanič, Fram 117/A, SI-2313 Fram).
A brief introduction to various features of the Park, Istria, Slovenia, incl. a phot. of *Ceragriion tenellum* (by M. Bedjanič), with an informative caption. The population in the lower reaches of the Dragonja R. is among the few in Slovenia that are still reasonably intact. – See also OA 12579.
- (13415) HEINO, J., 2000. Lentic macroinvertebrate assemblage structure along gradients in spatial heterogeneity, habitat size and water chemistry. *Hydrobiologia* 418: 229-242. – (Dept Biol., Univ. Oulu, P.O. Box 3000, FIN-90401 Oulu).
21 permanent water bodies were selected to represent various sizes and habitat conditions among ponds and lakes in Kuusamo, NE Finland, within the northern boreal vegetation zone. 8 odon. spp. are listed.
- (13416) HORVÁTH, J., 2000. *Naravni park ob Krki – [Nature Park on the Krka river]*. Ertékeinkért Alapítvány, Zalaegerszeg. 84 pp. ISBN 963-03-9010-8. (Slovene edn of a Hungarian work). – (Publishers: Határjáró út. 5, HU-8900 Zalaegerszeg).
The Park is situated in the border area, within Austria ("Raab"), Hungary ("Örség") and Slovenia ("Goricko"). 8 odon. spp. are mentioned.
- (13417) INOUE, K. & K. TANI, 2000. *Tombo no subete – All about dragonflies*. Tombo, Osaka. ii+168 pp. ISBN 4-88176-112-3. Softcover, 25.5x18.0 cm. – Price: ¥ 3500,- net. (Jap., with taxonomic nomenclature, Engl. chapter titles & fig. captions. – (Available from K. Inoue, 5-9, Fuminosato 4-chome, Abeno-ku, Osaka, 545-0004, JA).
This is the second and revised edn of the work listed in OA 12676, resulting in 16 extra pages, containing "Families of the World Odonata" (brief diagnoses, with distribution maps; pp. 149-157), "Scientific name index" (pp. 161-163) and "Japanese name index" (pp. 164-167). Aside of

- the correction of a number of minor misprints, 2 figs were corrected, resp. replaced, viz. caudal gills are added in the fig. of *Rhinocypha uenoi* larva (p. 11), and the phot. of *Aeshna nigroflava* is replaced by *A. juncea* (p. 60).
- (13418) ISHII, M., T. KANATA, K. KOBAYASHI & Y. MICHISHITA, 2000. Vegetation and species diversity of aquatic insects in the Ziou Marsh, northern Osaka. *Scient. Rep. Coll. Agr. Osaka Pref. Univ.* 52: 29-41. (Jap., with Engl. s. & fig. captions). — (First Author: Coll. Agric., Osaka Pref. Univ., Sakai, Osaka, 599-8531, JA).
The studies were conducted during Apr.-Nov. 1998. 29 odon. spp. were identified, 9 of these also as larvae. Their numbers and densities are stated. For some of them, seasonal changes in the abundance of larvae and adults are shown in graphs. *Cercion calamorum*, *Indolestes peregrinus*, *Nannophya pygmaea*, *Sympetrum darwinianum* and *S. kunkeli* were dominant. Special attention is given to seasonal dynamics of *N. pygmaea*.
- (13419) JURZITZA, G., 2000. *Der Kosmos Libellenführer: die Arten Mittel- und Südeuropas*. Kosmos, Stuttgart, 191 pp., 175 col. phot., 9 pictorial keys incl. Hardcover, 11.0x18.6 cm. ISBN 3-440-08402-7. — Price: DEM 39.90, ATS 291.-, CHF 37.- net. — (Publishers: Pfizerstrasse 5-7, D-70184 Stuttgart).
Furnished with a new title, this is the second, updated, revised and enlarged edn of the work described in OA 6282. The style and scope remained unchanged, some figs were replaced, and the recent literature, particularly that on larvae, is accounted for. — This is a classical work, a reliable and easy-to-handle identification tool, and a concise introduction into biology of the regional spp.
- (13420) KANOU [=KANOU], K., 2000. [Orthetrum albistylum speciosum devouring prey in the upside-down position]. *Nature & Insects* 35(7): 34. (Jap.). — (No. 601, 19-17, Koishikawa 5-chome, Bunkyo-ku, Tokyo, 112-0002, JA).
A ♂ *O. a. speciosum* caught a *Sympetrum frequens* ♂ above water. Holding the victim, it tried to perch but slipped upside-down on a leaf. It remained devouring the victim in this position during 20 min. A phot. is included.
- (13421) KANOU [=KANOU], K. & T. MIYAHATA, 2000. [Faked death in *Bayadera brevicauda ishigakiana* and *Euphaea yayeyamana*]. *Gekkan-Mushi* 352: 51-52. (Jap.). — (First Author: No. 601, 19-17, Koishikawa 5-chome, Bunkyo-ku, Tokyo, 112-0002, JA).
Picked by hand and placed on leaves, *Bayadera* ♂♂ remained motionless and with retracted legs for 4-5 s, but one of them stayed so for 40 s. Most *Euphaea* ♂♂ took off almost immediately, but 2 remained immobile for a while, one of these stayed so for 3 min. after having been touched by hand.
- (13422) KANOU [=KANOU], K., Y. SAITO & S. KATO, 2000. Death by oviposition posture of *Aeshna nigroflava* Martin female. [sic]. *Nature & Insects* 35(4): 41-42. (Jap., with Engl. title). — (First Author: No. 601, 19-17, Koishikawa 5-chome, Bunkyo-ku, Tokyo, 112-0002, JA).
The ♀ was found dead, while retaining the oviposition posture, though the abdomen, dipped in water, was almost empty. It is assumed, it has fallen victim to a dytiscid beetle. Examples of dytiscid predation on adult *Aeshna juncea* and *Cercion hieroglyphicum* are mentioned, and a phot. is provided.
- (13423) KARJALAINEN, S., 2000. Harvinainen korento Virolahdella — [A rare damselfly in Virolahti]. *Helsingin Sanomat* 36503: C16 (issue of 5 Aug.). (Finn.). — (Tyrskykuja 3 B 15, FIN-02320 Espoo).
The leading national daily's report on the third Finnish record of *Ischnura pumilio*. A small population was discovered at a gravel pit in Virolahti, SE Finland (nr the coast). A col. phot. of a ♀ is included. — For the first Finnish record of this sp. see OA 5390.
- (13424) KARJALAINEN, S., 2000. Kaunissiipiset lepattelijat — Hovering on dazzling wings. *Suomen Luonto* 59(7): 36-37. (Finn., with Engl. s. on internet only: <http://www.suomenluontolehti.fi/artikkeli.php3?a=31>). — (Tyrskykuja 3 B 15, FIN-02320 Espoo).
Directed at general readership, the behaviour of the 2 Finnish *Calopteryx* spp. is described and illustrated with 3 col. phot. of *C. virgo*.
- (13425) KARUBE, H., 2000. [A diary from Ogawasara Islands]. *Gekkan-Mushi* 350: 38-42. (Jap.). — (3573-142, Kayama, Odawara, Kanagawa, 250-0852, JA).

- This was author's sixth visit to the archipelago, where he made an insect survey at some small, uninhabited islands, in June 1999. Boninagrion ezoin was found on Mukoh Is., but almost no odon. could be evidenced on the other islands, where their habitats are largely destroyed.
- (13426) KARUBE, H. & M. YOSHITAKE, 2000. [Stylurus nagoyanus recorded in Tokyo]. *Gekkan-Mushi* 35(2): 50. (Jap.). — (First Author: 3573-142, Kayama, Odawara, Kanagawa, 250-0852, JA). 2 exuviae, Shikahama, Adachi-ku, Tokyo, 13-VI-1999.
- (13427) KENNER, R.D., 2000. Lower Mainland dragonfly records for 1999. *Discovery, Vancouver* 29(1): 22-23. — (5560 Linscott Court, Richmond, BC, V7C 2W9, CA).
The Author maintains the British Columbia Odonata data base at the Spencer Ent. Mus., Univ. BC, Vancouver. Here, noteworthy records are given for 7 spp., viz. Tanypteryx hageni (Cypress Prov. Park; first breeding in Canada, cf. OA 13432), Aeshna interrupta (John Hendry Park; second record in the Greater Vancouver area), A. sitchensis (Burns Bog), A. subarctica (Burns Bog), Leucorrhinia proxima (Haney; second record in the Lower Fraser Valley), Pachydiplax longipennis (Bowen Island, second colony), and Sympetrum vicinum (Burns Bog). — (*Abstractor's Note*: Another important 1999 British Columbia record is that of Erythemis collocata from Cheam Lake, by Dr R. Cannings, which is the first for this sp. in the Fraser Valley after 1941. — Several important records were made in association with the DSA Nanaimo meeting in July 2000, viz. Lestes forcipata [Vancouver Island, by Dr S.W. Dunkle; first BC coastal record], Somatochlora brevicincta [Prince George, by S. Cannings & Dr S.W. Dunkle; new for BC], S. whitehousei [Okanagan, by D. & R. Cannings; considerable southward extension] and Pachydiplax longipennis [Okanagan, by Dr D.R. Paulson; first BC inland record]).
- (13428) KIMURA, K. & K. KISHI, 2000. [Tramea basilaris burmeisteri evidenced from Iriomote Island]. *Gekkan-Mushi* 34(7): 40-41. (Jap.). — (First Author: A-12, Waraku-so, 1-17-4, Zengyo, Fujisawa, Kanagawa, 251-0871, JA). 1 ♂, 23-VI-1999. New for Iriomote Island, Okinawa pref.
- (13429) KITA, H. & I. KAWASHIMA, 2000. Ecological notes on the adult of Davidius fujiama Fraser. *Gekkan-Mushi* 35(5): 5-9. (Jap., with Engl. title). — (First Author: Takiyama 6-2-15-308, Higashikurume, Tokyo, 203-0033, JA).
The observations were carried out during 1989-1998, at several localities in Tokyo, Saitama and Ibaraki prefectures, Japan. More than 150 exuviae/day were collected at a 50 m stretch of a stream, 2 km downstream from the oviposition site. The emergence occurred during 1 week in late Apr. Immature adults keep above forest canopy, mature ♂♂ are hardly territorial. Copulation was observed only twice, the eggs are dropped at shady places, from ca 10-20 cm, over wet soil, fallen leaves and moss near the bank.
- (13430) KONNO, Y., 2000. Aquatic insects in [a] paddy field in North Japan. *Nature & Insects* 35(9): 5-8. (Jap., with Engl. title). — (Sch. Envir. Functional Biol., Tohoku Univ., Tsutsumidori, Amamiya-machi, Aoba-ku, Sendai, 981-0914, JA). 7 odon. spp. are listed from a model paddy field in Akita pref. Sympetrum darwinianum, S. infuscatum and S. pedemontanum elatum were dominant. The reasons for their abundance (1997-1999) are briefly discussed.
- (13431) KUWAHARA, H., [Ed.], 2000. [*Nature guide book of Kami-mitsugatani, Yoshikawa*]. Ent. Soc. Osaka, Osaka. 69 pp., (25.5×18.0 cm), softcover. ISBN none. (Jap., mostly with taxonomic nomenclature). — (c/o K. Inoue, 5-9, Fuminosato 4-chome, Abeno-ku, Osaka, 545-0004, JA).
[Odonatol. papers:] Inoue, K.: Dragonfly biology (pp. 18-19); — Odonate fauna of Kami-mitsugatani (p. 20, with 44 col. phot. on pp. 4-11); — [Kuwahara, H.]: Two types of dragonfly emergence (p. 31); — Nakatsuka, K.: A short review of odonate exuviae (pp. 32-33); — Wada, Y.: Dragonfly phenology (pp. 34-35); — [Kuwahara, H.]: Pictorial key for 10 Sympetrum species (pp. 36-37); — Kuwahara, N.: Breeding of odonate larvae (pp. 38-39).
- (13432) LANE, I., 2000. First breeding record for the Black Petaltail dragonfly in Canada. *Discovery, Vancouver* 29(1): 20-21. — (c/o R.D. Kenner, Spencer Ent. Mus., Dept Zool., Univ. Brit. Columbia, Vancouver, BC, V6T 1Z4, CA).
In late Aug. 1999, a breeding colony of Tanypteryx

- hageni was discovered at an elevation of ca 1000 m, on a trail in Cypress Bowl, Lower Mainland, British Columbia. In early Sept., some individuals were spotted flying within a km of the breeding site. The BC records of adults are going back as far as 1931, but this is the first evidence on breeding in Canada. The burrows were close to each other on a nearly vertical slope, with a small amount of debris on the downslope edge of the tunnel openings, probably left there by the excavating larvae. The heads of the larvae could be seen just below the ground surface in the tunnel openings. The larvae are sometimes easy to extricate from their burrows. Teasing one with a small grass stem, it shoots out its labium and clamps onto the stem. To get it back into its burrow, one actually has to push it into the hole. The adult *T. hageni* are easy to approach. They have a fondness for light coloured objects and may even land on one's shirt or shoulder.
- (13433) LEŠNIK, A. & A. ŠALAMUN, [Eds], 2000. *Kali: mreža vodnih biotopov – Karstic ponds as net of water biotopes*. Center za kartografijo favne in flore, Miklavž-na-Dravskem-polju. 8 pp. (Slovene, with Engl. title). – (Center za kartografijo favne in flore, Zemljemerska 10, SI-1000 Ljubljana).
Includes a list of 5 odon. spp., of which *Coenagrion scitulum* is in Slovenia almost entirely restricted to the karstic (man-made) ponds.
- (13434) LINDENIA. Notiziario dell'Ufficio nazionale italiano della Società odonologica internazionale, Napoli, No. 32 (22 June 2000). – (c/o Dr C. D'Antonio, Via A. Falcone 386/b, I-80127 Napoli). Various announcements and notifications, and an update of the *Hemianax ephippiger* records in Italy (incl. a map, showing all hitherto known sightings). Also included is a note on 3 *H. ephippiger* sightings in France (16-23 May 2000).
- (13435) LUZÓN-ORTEGA, J.M. & J.M. TIERNO DE FIGUEROA, 2000. Primeras citas de odonatos (Insecta, Odonata) del Parque Natural de la Sierra de Huétor (Granada, España). *Boln Asoc. esp. Ent.* 24(1/2): 257-259. (Span., with Engl. title). – (Depto Biol. Animal & Ecol., Fac. Cien., Univ. Granada, ES-18071 Granada).
A commented list of 16 spp., evidenced during 1999, at 12 localities (alt. 990-1400 m), Sierra de Huétor Natural Park, Granada, Spain.
- (13436) MAIBACH, A. & C. MEIER, 2000. Groupement des odonatologues de Suisse – Vereinigung der schweizerischen Libellenkundler – Gruppo degli odonatologi di Svizzera – Gruppament diis odonatologs svizzers: 12. Libellen-Symposium – 12^e Symposium des odonatologues de Suisse, Neuchâtel, 27.11.1999. *Nouvelles Cent. suisse Cartogr. Faune* 19: 38-42. (Fr.). – (First Author: La Croix, Rte de Moudon 11, CH-1610 Oron-la-Ville; – Second Author: Joggenrain 19, CH-8708 Männedorf/ZH).
[Abstracts of papers:] *Maddalena, T.*: Novità dal Ticino: Gruppo di lavoro "Libellule Ticino" (pp. 38-39); – *Dulka, N.*: Approche autécologique de trois espèces de Coenagrionidae (Odonata: Zygoptera) en Suisse occidentale (p. 39); – *Keim, Ch.*: Recolonisation par les odonates des gravières du Verney (Martigny, VS) asséchées en 1998 (pp. 39-40); – *Oertli, B.*: Prédiction des peuplements d'odonates des étangs suisses (p. 40); – *Wildermuth, H.*: Das Rotationsmodell zur Pflege von kleinen Libellengewässern: Rückblick auf 15 Jahre Praxis (pp. 40-41); – *Humbert-Droz, H. & S. Duboucher*: Suivis spatial et temporel d'une population d'*Orthetrum brunneum* sur la Seymaz (GE) (p. 41); – *Hoess, R.*: Libellenbeobachtungen im Kanton Bern in Zusammenhang mit dem Jahrhunderthochwasser vom Mai 1999 (pp. 41-42).
- (13437) MAJER, J.D., H.F. RECHER & S. GANESH, 2000. Diversity patterns of eucalypt canopy arthropods in eastern and western Australia. *Ecol. Ent.* 25(3): 295-306. – (First Author: Sch. Envir. Biol., Curtin Univ., P.O. Box U1987, Perth, WA 6845, AU).
A 1-yr chemical knockdown study was carried out in a Western Australian forest, where *Eucalyptus marginata* and *E. calophylla* were sampled, and in an eastern Australian forest (NSW), where *E. crebra* and *E. moluccana* were sampled. 976 spp. of 173 fam. were found in NSW, and 687 spp. of 176 fam. in WA. A single coenagrionid and a single lepidid sp., both from NSW, are the sole odon. encountered. Species names are not stated.
- (13438) MATTILA, K., 2000. Hyönteistiedonannot 1999 – [Insect records 1999]. *Diamina* 9: 44-46. (Finn.). – (Lukonmäenkatu 18 B 13, FIN-337000 Tampere).
Some Finnish records for 3 odon. spp., made by members of the Tampere Ent. Soc., are listed. The

- record of *Coenagrion puella*, from Ulko-Tammio Island in the eastern part of the Bay of Finland represents the fourth known locality of this sp. in Finland.
- (13439) McMILLAN, V.E., 2000. Postcopulatory behavior in *Libellula pulchella* Drury (Odonata: Libellulidae) and female tactics for avoiding male interference with oviposition. *J. Insect Behav.* 13(4): 573-583. — (Dept Biol., Colgate Univ., 13 Oak Dr., Hamilton, NY 13346-1398, USA). In this sp., ovipositing ♀♀ face frequent harassment by unpaired ♂♂ seeking matings. Although ♂♂ performed noncontact guarding of their mates after copulation, ♀♀ received minimal protection since their guarders tended to leave on extended chases of other ♂♂ when harassment was intense. Ovipositions by unguarded ♀♀ were even more likely to be terminated by harassment and were disrupted sooner. ♀♀ tactics to minimize interference included rapid escape flights, repeated return visits to the water within short periods, perching when severely harassed, and proceeding with mating when clasped. ♀♀ use of multiple oviposition sites is discussed in the context of guarding effectiveness and mate recognition by ♂♂.
- (13440) MISOF, B., C.L. ANDERSON & H. HADRY, 2000. A phylogeny of the damselfly genus *Calopteryx* (Odonata) using mitochondrial 16S rDNA markers. *Mol. Phylogen. Evol.* 15(1): 5-14. — (First Author: Inst. Evol. Biol. & Ecol., Univ. Bonn, An der Immenburg 1, D-53121 Bonn). An attempt is made to reconstruct the phylogenetic relationships of the genus *Calopteryx*, for which extensive behavioural and morphological knowledge already exists. To date, analyses of the evolutionary pathways of different life history traits have been hampered by the absence of robust phylogeny based on morphological data. This paper provides phylogenetic information from parts of the 16S rDNA gene, which was sequenced for 9 *Calopteryx* spp. and 5 outgroup spp. The mt 16S rDNA data set did not show signs of saturated variation for ingroup taxa, and phylogenetic reconstructions were insensitive to variation of outgroup taxa. Parsimony, neighbour-joining, and maximum-likelihood reconstructions agreed on parts of the tree. A consensus tree summarizes the significant results and indicates problematic nodes. The 16S rDNA sequences support monophyly of the genera *Mnais*, *Matrona* and *Calopteryx*. However, the genus *Calopteryx* may not be monophyletic, since *Matrona basilaris* and *C. atrata* are sister taxa under every parameter setting. The N American and European taxa each appear as monophyletic clades, while the Asian *C. atrata* and *C. cornelia* are not monophyletic. The data implies a different paleobiogeographic history of the Eurasian and N American spp., with extant Eurasian spp. complexes shaped by glacial periods, in contrast to extant N American spp. groups.
- (13441) MIYATAKE, Y., 2000. The extinct insects of Japan. 1. The extinct insects of Osaka prefecture. *Nature & Insects* 35(10): 25-28. (Jap., with Engl. title). — (5-2-4-502, Shirakashi-cho, Kashiwara, Nara, 634-0051, JA). These include 2 odon. spp., viz. *Libellula angelina* (no records after 1970, extinction due to the destruction of large ponds with reeds), and *Sympetrum maculatum* (no records after 1972, extinction due to the destruction of pine forest localities in the hills). The history of these spp. in the prefecture is briefly outlined.
- (13442) NIEUWSBRIEF VAN DE NEDERLANDSE VERENIGING VOOR LIBELLENSTUDIE (ISSN 1387-4470), Vol. 4, Nos 2 (June 2000), 3 (Sept. 2000). (Dutch). — (c/o M. Wasscher, Minstraat 15 bis, NL-3582 CA Utrecht). [Scientific notes:] [No. 2]: *de Jong, T.*: *Cordulegaster boltonii* in Culemborg (p. 4); — *den Toom, H.*: *Libellula fulva* in the Dordtsche Avelingen (pp. 5-7); — *van Trig, T.*: Dragonfly breeding news from Zuid-Kennemerland in 2000 (p. 7); — [7 brief notes related to the fauna of Belgium, France and the Netherlands] by *H. Matheve, R. Ketelaar, N. Dingemans & A. Rutten, A. Vliegthart & T. Hesselink, A. Wijker, J. van Delft, and H. Niesen* (pp. 7-8); — *Kop, A.*: Turkey, 20 May-3 June (pp. 8-9); — *Meuris, L.*: Habitat of *Gomphus similimus* vs that of *G. grasilinii* (pp. 9-10); — *Wasscher, M.*: Interview with Prof. Dr Gerhard Jurzitza (pp. 10-11). — [No. 3]: *Manger, R.*: New spring dragonflies from Noord-Holland (p. 7); — [8 brief notes on the Netherlands fauna] by *H. Niesen, B. Brugge, G. Kurstjens, K. Goudsmits, M. van der Weide, R. Geraeds, J. Slaats, and R. Ketelaar* (pp. 8-9); — *Vanderhaeghe, F.*: When is *Coenagrion scitulum* to reach the Netherlands? (pp. 9-10); — *Meuris, L.*: Dragonfly watching in the Damvallei (pp. 10-

- 11); – *Bal, D.*: Confirmation of the northward range expansion of *Trithemis annulata* in Italy (p. 12); – *Parr, A.*: Review of the recent changes in the odonate fauna of the United Kingdom and Ireland (pp. 12-14); – *Wasscher, M.*: [book review of the work described in OA 13298] (p. 14).
- (13443) *ODONATOLOGICAL ABSTRACT SERVICE*, No. 6 (July 2000). – (c/o J. Silsby, 1 Haydn Ave, Purley, Surrey, CR8 4AG, UK). Abstracts Nos 1189-1571, on 50 pp., related to the works published in 1997-2000.
- (13444) *ODONATOLOGICAL LIBRARY NEWS*, Osaka, No. 26 (26 March 2000). Published by Kansai Research Group of Odonatology, ISSN none. (Jap., with Engl. title). – (c/o K. Inoue, 5-9, Fuminosato 4-chome, Abeno-ku, Osaka, 545-0004, JA). Lists 137 numbered bibliographic entries (Nos 7072-7208) of Japanese publications (1998-2000), and contents tabs of *Gracile*, Vols 41-60.
- (13445) *OLSVIK, H.*, 2000. Øyestikkervisitt i Østfold 7.-11. Juli 1999 – [Dragonfly visit to Østfold, 7-11 July 1999]. *Natur Østfold* 19(1): 10-16. (Norw.). – (N-6694 Foldfjorden). A report is presented of a collecting trip; 19 localities were visited. The fauna appeared extremely rich; up to 18 spp. were evidenced within a single day at a single locality, which is a maximum for Norway. Among the spp. listed are *Coenagrion pulchellum*, *C. puella*, *Epithea bimaculata*, *Somatochlora flavomaculata*, *Leucorrhinia albifrons*, *L. caudalis*, etc.
- (13446) *OZONO, A. & T. YAGI*, 2000. Ecological notes on *Chlorogomphus brunneus keramensis* Asahina, 1972 (Odonata, Cordulegasteridae) from Tokashikijima Is., Kerama Isls, Okinawa, Japan. *Gekkan-Mushi* 349: 20-23. (Jap., with Engl. title). – (First Author: 514-302, Shimashi, Ginowan, Okinawa, 901-2213, JA). The observations were carried out at 4 streams on Tokashiki Is., during 16-19 July 1999. The activities were recorded from 05.50 to 19.00 h. The whereabouts, and territorial, roosting and reproductive behaviours are described, and exuviae were found up to 1 m above water, at a distance of up to 1 m from the stream.
- (13447) *PANTALA*. International Journal of Odonatology (ISSN 1388-7890), Vol. 3, No. 1 (dated 1 Aug. 2000, mailed to the subscribers 23 Sept. 2000). *Kenner, R.D., R.A. Cannings & S.G. Cannings*: The larva of *Leucorrhinia patricia* Walker (Odonata: Libellulidae) (pp. 1-10); – *Samraoui, B. & P.S. Corbet*: The Odonata of Numidia, northeastern Algeria, pt 1: status and distribution (pp. 11-25); – pt 2: seasonal ecology (pp. 27-39); – *Jödicke, R., J. Arit, B. Kunz, W. Lopau & R. Seidenbusch*: The Odonata of Tunisia (pp. 41-71); – *Cordero Rivera, A.*: Distribution, habitat requirements and conservation of *Macromia splendens* Pictet (Odonata: Corduliidae) in Galicia (NW Spain) (pp. 73-83); – *Hoekstra, J.D. & R.L. Smith*: Reproductive behavior of two *Argia* spp. damselflies (Odonata: Coenagrionidae) on an Arizona stream (pp. 85-94).
- (13448) *PEACOR, S.D. & E.E. WERNER*, 2000. Predator effects on an assemblage of consumers through induced changes in consumer foraging behavior. *Ecology* 81(7): 1998-2010. – (Dept Biol., Univ. Michigan, Ann Arbor, MI 48109, USA). It is examined how a predator-induced reduction in activity of a prey sp. (a “nonlethal” predator effect) affects the growth rate of the prey and, indirectly, the growth rate of competitors of the prey. It is also determined how the magnitudes of these effects depend on density of the prey sp. A foraging model is developed that predicts a predator will reduce the growth of a focal prey sp. at low prey density, but has little effect at high prey density. The model also predicts that presence of the predator will be negligible at low, and maximal at high, focal sp. density. These predictions were tested using a system of 3 sp./size classes of anuran larvae (*Rana clamitans*, *R. catesbeiana*) and a larval predator, *Anax longipenis*. Results were in accord with the model predictions, and show that the indirect effects of the predator that arose through reduction in prey foraging activity were comparable in magnitude to those expected through reduction in prey density. This suggests that the nonlethal effects of a predator on prey and, indirectly, on competitors of their prey, can be large in magnitude and depend strongly on relative species densities.
- (13449) *PIIRAINEN, T.*, 2000. Retki Saarenmaan nummille – [A collecting trip to Saaremaa Island, Estonia]. *Diamina* 9: 40-43. (Finn.). –

- (Kaarilahdenkuja 11, FIN-33700 Tampere).
9 odon. spp. are listed from 6 localities, in the first week of Aug. 1999.
- (13450) RELYEA, R.A., 2000. Trait-mediated indirect effects in larval anurans: reversing competition with the threat of predation. *Ecology* 81(8): 2278-2289. – (Dept Biol. Sci., Univ. Pittsburgh, Pittsburgh, PA 15260, USA).
It is examined how predators, mudminnows (*Umbra limi*) and *Anax* larvae, alter the behaviour and morphology of *Rana sylvatica* and *R. pipiens*, and how these phenotypic changes alter the outcome of competition between the 2 spp. Changes in behaviour were not related to changes in growth, but changes in morphology (reduced mouth width and tail length in the presence of the predator threat) were related to changes in growth. The work demonstrates that both competitors and predators can alter prey morphology and suggests that changes in morphology can cause trait-mediated indirect effects.
- (13451) ROLFF, J., 2000. Water mite parasitism in damselflies during emergence: two hosts, one pattern. *Ecography* 23(3): 273-282. – (Zool. Inst., Techn. Univ., Fasanenstr. 3, D-38092 Braunschweig).
The infections of emerging damselfly cohorts by ectoparasitic water mites *Arrenurus cuspidator* were followed closely over 2 yr in 2 populations. In one pond *Coenagrion puella* was the single host sp., whereas in the second pond *C. hastulatum* co-occurred. The prevalences found were close to 100%. The mean daily abundance of mites ranged from 1 to 45 per host, with a peak after roughly one third of the emergence period. – The water mites displayed a clumped distribution on their hosts measured by the variance/mean ratio. No differences in parasite abundance due to host sex, head width, or host species could be detected. The abundance of mites was synchronised with host's emergence patterns. This was stronger in the system with 2 host spp. D. Shaw & A. Dobson (1955, *Parasitology* 111: S111-S133) recently showed a generalised relationship of variance mean of parasite abundance combining data from 269 host parasite systems. The data presented here and some other water mite associations show a significant deviation from this general rule.
- (13452) ROLFF, J., H. ANTVOGEL & I. SCHRIMPF, 2000. No correlation between ectoparasitism and male mating success in a damselfly: why parasite behavior matters? *J. Insect Behav.* 13(4): 563-571. – (Zool. Inst., Techn. Univ., Fasanenstr. 3, D-38092 Braunschweig).
The mating success of marked ♂ *Coenagrion puella*, parasitized by water mites, was closely followed. The number of ectoparasites could be determined exactly from knowledge of the parasite's life cycle. In contrast to earlier studies, no correlation between water mite infestation and ♂ mating success was revealed. The reasons for this discrepancy may be explained by the inclusion of the parasite's behaviour. The ♂ body fat content was negatively correlated with the mite load, indicating that parasitism reduces host's condition. It is hypothesized that the water mite-damselfly system is not useful for testing the Hamilton-Zuk hypothesis. Furthermore, selection exerted or mediated by parasites should act during the teneral phase.
- (13453) SEKIGUCHI, N., 2000. [Some coenagrionids recorded from northern Nagano prefecture]. *Nature & Insects* 35(1): 27. (Jap.). – (2603-2, Iiyama, Iiyama, Nagano, 389-2253, JA). *Ceriatrion melanurum*, *Cercion sieboldii*, *Coenagrion lanceolatum* and *C. terue* are added to the regional list.
- (13454) SEKIGUCHI, N., 2000. [Two gomphid species recorded from northern Nagano prefecture]. *Nature & Insects* 35(1): 27. (Jap.). – (2603-2, Iiyama, Iiyama, Nagano, 389-2253, JA). *Anisogomphus maacki* and *Sieboldius albardae* are added to the Iiyama list.
- (13455) SHIROZU, T., 2000. [*Calopteryx atrata* found in autumn]. *Gekkan-Mushi* 349: 45. (Jap.). – (3-46-28, Nokata, Nishi-ku, Fukuoka, 819-0043, JA).
Sighted in Fukuoka, 24-X-1998; sex not stated.
- (13456) SOLIMINI, A.G., P. GULIA, M. MONFRINOTTI & G. CARCHINI, 2000. Performance of different biotic indices and sampling methods in assessing water quality in the lowland stretch of the Tiber river. *Hydrobiologia* 422/423: 197-208. – (Dipto Biol., Univ. Roma "Tor Vergata", Via della Ricerca Scientifica, I-00133

Roma).

The performances of 4 biotic indices and the influence of 4 sampling methods on the water quality assessment of a deep and turbid stretch of the Tiber R. are elucidated. 5 Zygoptera spp. are listed for 10 sampling stations along the ultimate 50 km of the river; – Italy.

- (13457) STEINER, C., B. SIEGERT, S. SCHULTZ & F. SUHLING, 2000. Habitat selection in the larvae of two species of Zygoptera (Odonata): biotic interactions and abiotic limitation. *Hydrobiologia* 427: 167-176. – (Zool. Inst., Techn. Univ., Fasanenstr. 3, D-38092 Braunschweig).
Field and laboratory experiments were set up to obtain data on the reasons for different habitat selection of *Enallagma cyathigerum* and *Platycnemis pennipes*. Rearing of larvae in 2 different ponds showed that while *P. pennipes* was not able to survive conditions of low oxygen content, 50 % of the *E. cyathigerum* larvae survived. In field predation experiments with sticklebacks and dragonflies as predators, *E. cyathigerum* suffered highest predation by the fish. In *P. pennipes*, mortality was highest with *Anax imperator*. Experiments regarding larval behaviour showed that *E. cyathigerum* was generally more active and had higher foraging success than *P. pennipes*. Both spp. reduced activity in the presence of fish, but *E. cyathigerum* did so to a minor extent. In contrast to *P. pennipes*, *E. cyathigerum* showed escaping behaviour. In the laboratory, the growth of *E. cyathigerum* was faster than that of *P. pennipes*.
- (13458) TAGUCHI, M., 2000. [Biology Clubs in senior highschools. 1. Kanagawa Prefectural Yasaka Higashi Senior Highschool]. *Nature & Insects* 35(10): 32-34. (Jap.). – (1-22-4 Minami-Higashimoto, Sagamihara, Kanagawa, 229-1133, JA).
Established in 1992, and guided by the Author, all activities of the Club are directed at odon. life in the hills. The Club's history and some highlight achievements are outlined.
- (13459) TAKASAKI, Y., 2000. [Seven years of dragonfly observations in artificial pools]. *Gekkan-Mushi* 353: 22-29. (Jap.). – (1-14, Fujimori, Meito-ku, Nagoya, 465-0026, JA).
During 1993-1999, phenological observations were carried out at 7 sedimentation tanks for waste water treatment in Okazaki, Aichi pref., Japan. Daily collections yielded exuviae of 18 spp., 8 of which every yr. The phenology of each sp. is recorded and discussed. *Anax parthenope julius* appears to be bivoltine at that locality. *Cercion sexlineatum* turned up first in 1996, whereafter its population increased, triggering the decrease of *C. hieroglyphicum*. The introduction of carp had an overall negative effect on odon. populations.
- (13460) TAKETO, A., 2000. [Observations on dragonfly biology]. *Nature & Insects* 35(1): 21. (Jap.). – (1-1-19, Ishibiki, Kanazawa, 920-0935, JA).
(1) At a man-made pond in Kanazawa city *Ephthalma elegans* and *Sympetrum s. speciosum* were emerging in large numbers, and a *Coenagrion lanceolatum* ♂ was sighted, which apparently immigrated from the hills 10-11 yr after construction of the pond. – (2) At the same pond, 13 ♂ and 20 ♀ *Anaciaeschna martini* have emerged in 1996. The difference in sex ratio is diminishing year after year. – (3) In Fukui pref., an interspecific tandem, *Sympetrum frequens* ♂ × *S. infuscatum* ♀, was sighted in a rice field, 21-X-1997.
- (13461) THEISCHINGER, G., 2000. A new species of *Pseudagrion* Selys from Australia (Odonata: Coenagrionidae). *Linz. biol. Beitr.* 32(1): 253-257. – (2A Hammersley Rd, Grays Point, NSW 2232, AU).
P. ingrid sp. n. is described, illustrated and compared with the Australian congeners. Holotype ♂: Eubenangee Swamp nr Babinda, Qld, 5-IV-1997; deposited in CSIRO, Canberra. The new sp. is closest to *P. jedda* and possibly to *P. aureofrons*.
- (13462) THEISCHINGER, G., 2000. The *Acanthaeschna* story (Odonata: Aeshnidae). *Linz. biol. Beitr.* 32(1): 235-240. – (2A Hammersley Rd, Grays Point, NSW 2232, AU).
Significant details of the history of discovery and rediscovery of *A. victoria* Martin are presented, along with the description of its supposed larva and a discussion on its possible systematic position, on ecology and distribution.
- (13463) THEISCHINGER, G., 2000. The larva of *Synthemiopsis gomphomacromioides* Tillyard (Odonata: Synthemiistidae). *Linz. biol. Beitr.* 32(1): 259-263. – (2A Hammersley Rd, Grays Point,

- NSW 2232, AU).
The larva is described, illustrated and compared with those of the other Tasmanian synthemistid spp. and with all other Australian synthemistid genera.
- (13464) THEISCHINGER, G., 2000. The male of *Eusynthemis tenera* Theischinger (Odonata: Synthemistidae). *Linz. biol. Beitr.* 32(1): 241-245. – (2A Hammersley Rd, Grays Point, NSW 2232, AU).
The ♂ allotype is described, and the sp. is compared with the known Australian congeners, particularly with its closest ally, *E. barbarae* (Moulds). – See also OA 13404.
- (13465) THEISCHINGER, G. & J.H. HAWKING, 2000. The larva of *Eusynthemis ursula* Theischinger (Odonata: Synthemistidae). *Linz. biol. Beitr.* 32(1): 247-251. – (First Author: 2A Hammersley Rd, Grays Point, NSW 2232, AU).
The larva is described, illustrated and diagnosed, and notes are provided on its ecology, biology and affinities.
- (13466) TSUDA, S., 2000. *A distributional list of World Odonata*, 3rd edn. Tsuda, Osaka. viii+430 pp. (18.0x25.6 cm), softcover. – (Available from the Eds of *Odonatologica*, at NLG 150.- net).
This is the revised and updated edn of the work described in OA 5447 and 8012, listing all to date known extant spp. (5412) and the recognised ssp. (557). A complete species inventory is given country-wise, for every country and some other administrative entities of the world (241). For convenience, a separate list is also provided of taxa introduced in the Odon. after publication of the 1994 (last) edn of the Bridges catalogue (cf. OA 10070), i.e. 16 gen. and 196 spp. & ssp., along with bibl. page & fig. references and annotations on type locality and type deposition. A checklist of genus-group names (630 in 28 fam.) and a list of synonyms are also included. – For taxonomists, biogeographers and for compilers of national faunal surveys this is an absolutely indispensable work.
- (13467) UDONO, K., 2000. [*Ictinogomphus pertinax* taken in Aichi pref.]. *Gekkan-Mushi* 347: 44-45. (Jap.). – (1-14-17, Ontake, Togo-cho, Aichi-gun, Aichi, 470-0156, JA).
2 ♂, Irago National Vacation Village, Asumi-cho, 9-X-1999). New for Aichi pref., bringing the status of its fauna up to 96 spp.
- (13468) VICK, G.S., 2000. *Dragonflies of Cameroon: a guide to identification*. Draft version (20 Aug. 2000), prepared for the projects on Mount Cameroon and Mount Kupe. Vick, Tadley. 46 pp. – (Crossfields, Little London, Tadley, Hants, RG26 5ET, UK).
Its objective is to assist in identification of the spp. from Cameroon and Nigeria. All reliably recorded spp. from these 2 countries are included, along with most of the W African ones. Many of the keys (♂♂ only) are adapted and modified from the works of E. Pinhey and R. Gambles. In this draft edn, no drawings are included. An improved version is expected in due course. – For a work on larvae, see OA 12117.
- (13469) VINGERHOEDS, L. & H. BLAAUW, 2000. *Libellen inventarisatie in natuurgebieden in de omgeving rond Breda in 1999* – [*Dragonfly inventarisatie in nature reserves in the surroundings of Breda in 1999*]. Insectenwerkgroep KNNW, Afd. Breda. ii+10 pp. (Dutch). – (First Author: J. Helleputestraat 20, NL-4827 CA Breda).
Covers 7 areas; – Noord Brabant prov., the Netherlands. – See also OA 13378.
- (13470) VOIGT, H. & T. GÖHLERT, 2000. Erstnachweis von *Gomphus flavipes* (Charpentier, 1825) in der Dresdner Elbtalweitung (Odonata). *Ent. Nachr. Ber.* 44(1): 50. – (First Author: Grundstr. 152, D-01324 Dresden).
1 ♂ (teneral), Dresden-Gohlis, 1-VIII-1999.
- (13471) W.D.A.'s AGRION. Newsletter of the Worldwide Dragonfly Association (ISSN 1462-8449), Vol. 4, No. 2 (July 2000). – (c/o J. Silsby, 1 Haydn Ave, Purley, Surrey, CR8 4AG, UK).
Editorial (p. 17); – *Silsby, J.*: In memoriam Dr Elliot Pinhey (pp. 17-20; with bibliography); – News from members (pp. 20-21); – News from universities (p. 21); – Conservation news (p. 21); – *Goddard, D.*: Bennerley Marsh Wildlife Group (pp. 21-22; with spp. list); – *Corbet, P.*: Use of odonate larvae for biocontrol of insect pests (pp. 22-23); – *Schneider, W.*: The "Sad Emperor" and the sailors (p. 23; encounter with *Anax tristis*, 60 km off the Angolan coast); – *Silsby, J.*: Tachopteryx thoreyi (p. 24); – *Tennessee, K.*: Back to Bolivia

- (p. 24); – *Allen, P.*: Sri Lanka at Christmas (p. 25; with some records); – [*Silsby, J.*] [Obituary notice for Terence de Fonseka] (p. 25); – *Taylor, J.*: Further observations on *Petalura hesperia* behaviour (p. 25); – *Parr, A.*: *Hemianax ephippiger* in Britain and Europe (p. 26); – *Sahlen, G. & A. Sahlen*: Gallivare in 2001 (p. 27); – *Ubukata, H.*: Imato Sonehara: an appreciation (p. 28).
- (13472) WANG, S., Z. GONG & P. XIE, 2000. Environmental factors and the succession of aquatic insects in a shallow Chinese lake. *Bull. envir. Contam. Toxicol.* 64(5): 701-707. – (Donghu Exp. Stn, Inst. Hydrobiol., Academia Sinica, Wuhan, Hubei-430072, P.R. China).
The aquatic insect fauna was monitored (1962-1996) at Lake Donghu, in the middle reaches of the Yangtze R., NE Wuhan, Hubei prov. 11 odon. genera (here called “species”) were evidenced during 1962-1963. The decline set in in 1973, and only 4 genera were recorded in the 1995-1996 period. This is due to the discharge of untreated domestic wastewater, which commenced in the 1970s, causing high eutrophication and a large-scale destruction of aquatic vegetation. The effect was enhanced by the construction of some dams, disconnecting the lake from the river during the periods of flood.
- (13473) ZHANG, J., 2000. [Discovery of aeschniid larvae (Insecta, Odonata)]. *Chin. Sci. Bull.* 45(2): 192-199. – Nanjing Inst. Geol. & Palaeont., Acad. Sinica, 39 East Beijing Rd, Nanjing-210008, Jiang prov., P.R. China).
[Abstract not available] Includes the description and figs of *Sinaeschnidia cancellosa* Ren.
- 2001**
- (13474) DIJKSTRA, K.-D.B. & B. KOESE, 2001. Dragonflies of Pripyat National Park, Belarus (Odonata). *Opusc. zool. flumin.* 192: 1-20. – (Gortestraat 11, NL-2311 MS Leiden).
43 spp. are reported from the Park (Gomelskaya Oblast, southern Belarus), 9 of which are recorded from the oblast for the first time. Information on ecology and larval habitats is provided for most of them. Early or mass emergence, relative to climate and habitat structure, is discussed in *Nehalennia speciosa*, *Aeshna subarctica*, *Somatochlora arctica* and other bog spp. Peculiarities in habitat choice of *Coenagrion armatum*, *Ischnura elegans* and *Pyrrhosoma nymphula* are outlined.
- (13475) ISHIZAWA, N., 2001. [Calendar] *Dragonflies of the Sayama Hills, 2001*. Ishizawa, Tokorozawa, Saitama, 359-1145, JA).
A beautiful bimonthly wall calendar, with a dragonfly portrait on each page. Taxonomic nomenclature.
- (13476) NIEVERGELT, B. & H. WILDERMUTH, 2001 [Actually published in Nov. 2000]. *Eine Landschaft und ihr Leben: das Zürcher Oberland, vom Tierhag zum Volkiland*. Hochschulverlag ETH, Zürich. 382 pp. (17.0x24.0 cm), softcover. ISBN 3-7281-2689-6 [ZürcherHochschulforum, Vol. 30]. – Price: CHF 27.- net). – (Wildforschung u. Naturschutzökol., Zool. Inst., Univ. Zürich, Winterthurerstr. 190, CH-8057 Zürich).
The book is addressing various landscape aspects of the Zürich Upperland, Switzerland. It contains a number of references to the odon. (incl. a distribution map of *Nehalennia speciosa* in Switzerland), all by the second Author.
- (13477) ODONATOLOGICAL ABSTRACT SERVICE, No. 7 (Jan. 2001). – (c/o J. Silsby, 1 Haydn Ave., Purley, Surrey, CR8 4AG, UK).
Abstracts Nos 1572-1982, on 54 pp., related to the works published in 1997-2000.