

ODONATOLOGICAL ABSTRACTS

2000

- (14152) BEUDEKER, K., 2000. *Utrecht natuur dichtbij*. — [*The Utrecht nature close at hand*]. Stichting het Utrechts Landschap, De Bilt. 121 pp. ISSN 1567-0791. (Dutch). — Price: € 6.80 net. — (Publishers: P.O. Box 121, NL-3730 AC De Bilt).

The Calopteryx splendens population in the Kromme Rijn R. nr the city of Utrecht, the Netherlands is mentioned and some photographs are included.

- (14153) BOSSENBROEK, P., O. DRIESSEN & J. HERMANS, 2000. Herstelbeheer de Snep succesvol. — Habitat restoration at De Snep Nature Reserve. *Natuurh. Maandbl.* 89(11): 238-245. (Dutch, with Engl. s.). — (Third Author: Hertestraat 21, NL-6067 ER Linne).

De Snep (surface ca 5 ha), a natural pond, surrounded by grassland and a few patches of forest, is situated in central Limburg, the Netherlands. In 1994 the pond was cleaned and the silty sediment removed. Over the period, 1998-2000, 26 odon. spp. were recorded, mostly spp. of moderately eutrophic water.

- (14154) CROWLEY, P.H., 2000. Sexual dimorphism with female demographic dominance: age, size, and sex ratio at maturation. *Ecology* 81(8): 2592-2605. — (Cent. Ecol., Evol. & Behav., T.H. Morgan Sch. Biol. Sci., Univ. Kentucky, Lexington, KY 40506-0225, USA).

Under the influence of natural and sexual selection, ♂♂ and ♀♀ will often differ in the costs and benefits of achieving some particular body size; one might therefore expect to find them growing at different rates for different times, and dying on different schedules. The analysis of sexual dimorphism presented here

assumes that life histories are optimized over 3 key variables: activity level (or "effort") during the juvenile stage, duration of the juvenile stage, and size at maturation. Reproduction is taken to be semelparous (or monogamous), reproductive success is size dependent, and ♀♀ are demographically dominant. Juvenile ♂ and ♀ life histories are assumed to be "structurally identical" (i.e. governed by identical functions of activity, size, and development time). Under these conditions, sexually dimorphic life histories readily arise when features of juvenile behaviour and development are adjusted to maximize $\bar{r}$ in response to gender-specific selection pressures on adults. Some of the conclusions from the analysis are, e.g. (1) Seasonal constraints that force ♂♂ and ♀♀ to have equal development times cause differences between the sexes in other characteristics, and (2) The survival cost of greater body size generates a sex ratio at maturation favoring the smaller sex. — In odon., data currently available on mass at emergence generally indicate an inverse relationship between sexual size dimorphism (SSD) and sex ratio. This may result from mating advantages of large size in territorial ♂♂ and disadvantages in nonterritorial ♂♂. However, not all odon. have sexually dimorphic life histories before emergence. Size at emergence, time to emergence and larval growth rates are statistically indistinguishable between sexes in *Lestes* congener. This suggests that larval mortality rates and activity levels also do not differ by sex in this sp.

- (14155) DE MOLENAAR, J.G. & D.A. JONKERS, 2000. Verlichting rijksverkeerswegen Utrechtse Heuvelrug: een evaluatie van de faunistische aspecten van een proef met hoofdverlichting en oriëntatieverlichting. — [Highway illumination in Utrechtse

- Heuvelrug: assessment of faunistic aspects in an experiment with main- and orientation lights]. *Alterra Rapp.* 110: 1-69. (Dutch). — (Alterra Res. Inst. Groene Ruimte, P.O. Box 47, NL-6700 AA Wageningen). Includes a passing references to the odon., but no effects are stated and no target spp. are identified; — Utrecht Hill Range, the Netherlands.
- (14156) EISERMANN, K., 2000. Ökologische Bewertung einer ehemaligen Militärfäche: das Tanklager Zeisigwald. *Veröff. Mus. Naturk. Chemnitz* 23: 51-62. — (Carl-von-Ossietzky-Str. 213, D-09127 Chemnitz). The locality is situated S of Chemnitz, E Germany. During 1995-1996, 27 odon. spp. were evidenced, based on exuviae collections. The structure of the community is analysed.
- (14157) ENDERSBY, I., 2000. Common names for dragonflies. *Victorian Ent.* 30(4): 53-54. — (56 Looker Rd, Montmorency, Vic. 3094, AU). The vernacular names, as used for some odon. taxa in the UK, USA, and New Zealand, are listed. There seems to be little agreement between these nomenclatures, and an international standard is lacking. Therefore it is suggested, Australia should feel free to produce a unique set of vernacular dragonfly names.
- (14158) ENDERSBY, I., 2000. Dragonfly conservation in Victoria. *Victorian Ent.* 30(4): 47-51. — (56 Looker Rd, Montmorency, Vic. 3094, AU). From the national (Australian) point of view, *Hemiphysalis mirabilis* is the only sp. in Victoria that is assessed as "vulnerable". 11 spp. are "Near Threatened" (Australia-wide), 7 spp. are "Data Deficient", and 55 spp. are "Least Concern". A checklist is presented and some explanatory notes are provided.
- (14159) GOLUBKOV, S.M., 2000. *Functional ecology of aquatic insects*. Zool. Inst., Russ. Acad. Sci., St Petersburg. 294 pp. ISBN 5-288-02823-0. (Russ., with Engl. title & s.). A general review is presented of the data on the biotic interaction, life cycles, specific rate of production and oxygen consumption of aquatic insects (716 spp.). The odon. (over 20 spp. of the Russian fauna) are thoroughly considered.
- (14160) GORB, S.N., R.S. PAVLJUK & Z.D. SPURIS, 2000. Babki (Odonata) Ukraini: faunistichnyi oglyad. — Odonata of Ukraine: a faunistic overview. *Vest. Zool.* (Suppl.) 15: 1-155. ISBN 966-02-1815-X. (Ukrainian, with Engl. & Russ. s's & Preface). — (Publishers: Schmalhausen Inst. Zool., Natn. Acad. Sci. Ukraine, Vul. Khmel'nits'kogo 15, UKR-01601 Kiev-30). Published in 200 copies only, this is a thorough review of the odon. fauna (73 spp.) of the Ukraine, with (well-illustrated) keys to the adults, all known (published and hitherto unpublished) records, adult phenology graph, and with a complete bibliography. Very useful are also the bibliographically documented district checklists of spp.
- (14161) HA, L.Y., 2000. *Untersuchungen zur Emergenz und Mobilität der Geminen Smaragdlibelle (Anisoptera: Corduliidae) und zur Libellenfauna in der Umgebung von Winterthur (Kt. Zürich, Schweiz)*. vii+76 pp. — (c/o Prof. Dr. H. Wildermuth, Haltbergstr. 43, CH-8630 Rüti). In the vicinity of Winterthur, Switzerland, the emergence period in *Cordulia aenea* lasts less than 30 d. In the population of ca 3300 individuals, sex ratio was about 1:1, though the ♂ emerged earlier than the ♀. The individuals at a smaller pond were significantly larger than those at a large pond. The mean maturation time amounts to 21 d, longevity to 45-62 d. Migrating individuals covered stretches of 2.25-4.50 km. — During the field work (summer 2000), 35 spp. were evidence in the Winterthur area.
- (14162) HABIJA, I., I. RADANOVIĆ & R. MATONIČKIN, 2000. Functional feeding structure of benthic macroinvertebrates in travertine barrier biotopes. *Verh. int. Ver. Limnol.* 27(5): 2594-2599. — (Dept Zool., Fac. Sci., Univ. Zagreb, Rooseveltov trg 6, CRO-10000 Zagreb). *Onychogomphus forcipatus* is reported from the travertine moss- and filamentous algae covered substrate of the Plitvice (oligotrophic, travertine barrage) Lakes, NW Dinarid Mts, Croatia.
- (14163) HUTH, J., 2000. Libellen (Odonata) der Braunkohlen-Bergbaufolgelandschaft Sachsen-Anhalts. *Abh. Ber. Naturk., Magdeburg* 23: 3-27. (With Engl. s.). — (Oekokart, Georg-Cantor-Str. 31, D-06108 Halle/Saale). During 1996-1998, 46 spp. were recorded at the open-cast lignite post-mining landscapes of Sachsen-Anhalt, E Germany. The importance of extensive stretches of shallow water with diverse vegetation is emphasized.
- (14164) LEBENHAGEN, A., 2000. Bericht über das Exkursionswochenende der Entomologen von

- Mecklenburg-Vorpommern vom 18. bis 20. Juni 1999 in Dümmer. *Virgo* 4(1): 99-103. — (Ent. Ver. Mecklenburg, Schäferstr. 24, D-19053 Schwerin). Includes references to *Lestes dryas*, *Anax imperator* and *Leucorrhinia pectoralis*; — Dümmer, Mecklenburg-Vorpommern, E Germany.
- (14165) LEUNISSEN, J., J. LINSSEN & P. BOSSEN-BROEK, 2000. Nieuwe kansen voor het Keversbroek. — New opportunities for the Keversbroek. *Natuurh. Maandbl.* 89(3): 53-59. (Dutch, with Engl. s.). — (First Author: Heerweg 2, NL-6082 AC Buggenum). Situated in the municipality of Heythuysen, central Limburg, the Netherlands, the Keversbroek harbours several odon. spp., of which *Lestes barbarus* is mentioned here.
- (14166) MANGER, R., 2000. *Libellen in de duinen van de Noordkop, 2000: Grafelijkheidsduinen, Doggersplaats/Refugium en Zwanenwater*. — [*Dragonflies in the Noordkop dunes, 2000*]. KNNV Rapp. Afd. Den Helder, 34 pp. (Dutch). — (Available from: KNNV Afd. Den Helder, c/o K. Kaag, Kofstraat 14, NL-1784 RP Den Helder; — Author: Stoepveldsingel 55, NL-9403 SM Assen).
A thorough treatment of the odon. fauna (27 spp.) of the dune area between the cities of Den Helder and Petten, Noord Holland prov., the Netherlands, incl. distribution maps for the period 1925-2000. In 1999 and 2000 *Erythromma najas* and *Aeshna grandis* were not sighted. — (For regional newspaper articles on this work see *Noordhollands Dagblad/Helderse Courant* 2000(203), issue of 29 Aug.; — and *Noordhollands Dagblad/Schager Courant* 2001, issue of 20 Apr. — For the 1999 report, see OA 14026).
- (14167) MANGER, R., 2000. Verslag libellenexcursie van 29 juli jl. in de Grafelijkheidsduinen. — [Report on the dragonfly field trip to the Grafelijkheidsduinen of 29 July 2000]. *Op de Kop* 5(3): 15-17. (Dutch). — (Stoepveldsingel 55, NL-9403 SM Assen).
The field trip took place in the framework of a dragonfly workshop, 8 persons participated. 9 spp. are recorded; Noord Holland prov., the Netherlands.
- (14168) PILGRIM, E.M., 2000. *The taxonomic status of two dragonfly species using habitat conditions, morphological measurements, and ribosomal DNA sequences*. M.Sci. thesis, Wright St Univ. x+87 pp. — (Dept Biol., Utah St. Univ., Logan, UT 84321, USA). F.L. Carle's resurrection of the genus *Zoraena* and his splitting of *Cordulegaster* diastatops into 2 spp., *Z. diastatops* and *Z. bilineata* (cf. OA 4095) have not been widely accepted; most workers consider *Zoraena* a synonym of *Cordulegaster*, while *Z. bilineata* may be a geographic variant of *Z. diastatops*. In the present thesis, the subject is examined in detail, and it is concluded that the status of *Zoraena* remains problematic; there are no habitat, ecological or behavioural differences between *Cordulegaster* and *Zoraena*, and the genetic evidence neither supports nor discounts the generic status of the latter, therefore using *Cordulegaster* as the generic name for *bilineata* and *diastatops* would be "prudent". On the other hand, *C. bilineata* and *C. diastatops* are most likely representing good spp., as indicated by morphological and ITS-1 sequence differences between them.
- (14169) RAM, R., K. CHANDRA & K. YADAV, 2000. Studies on the Odonata fauna of Andaman and Nicobar Islands. *Rec. zool. Surv. India* 98(3): 25-60. — (First Author: Zool. Surv. India, M-Block, New Alipore, Calcutta-700053, India).
58 spp. are listed and keyed, incl. 8 spp. that are new to the fauna of the Archipelago, of which *Cratilla metallica* is for the first time recorded from the Indian territory.
- (14170) SCHNABEL, H., 2000. Der Libellenbestand eines Naturschutzteiches am Südrand von Wittichenau. *Veröff. Mus. Westlausitz Kamenz* 22: 57-64. — (Keula 16, D-02997 Wittichenau).
The Conservancy pond (surface 0,28 ha; alt. ca 143 m) is situated at the outskirts of Wittichenau, E Germany. The management measures implied vegetation cleansing (1995, 1996), and it suffered an illegal water discharge (1997) that caused a 75% temporary surface decrease. By means of systematic exuviae collecting, the development of its odon. community (22 spp.) was monitored during 1996-1998. The results of the successful restoration are described and discussed.
- (14171) STOLZENBURG, U., 2000. Nachweis der Arktischen Smaragdlibelle (*Somatochlora arctica* Zetterstedt, 1840) in der Radeburger Heide. *Veröff. Mus. Naturk. Westlausitz Kamenz* 22: 93-96. — (Bärnsdorfer Str. 1a, D-01471 Berbsdorf).
2 exuviae, Radeburger Heide (distr. Meissen, E Germany), 3-VI & 16-VII-2000, along with *Pyrhosoma nymphula*, *Aeshna juncea*, *Cordulegaster boltoni*, *Sympetrum danae*, and *Leucorrhinia dubia*.
- (14172) TROMBULAK, S.C. & C.A. FRISSELL, 2000.

Review of ecological effects of roads on terrestrial and aquatic communities. *Conserv. Biol.* 14(1): 18-30. (With Span. s.). — (First Author: Dept Biol., Middlebury Coll., Middlebury, VT 05753, USA).

The review deals with the US situation and includes almost 180 bibl. references. The effects on aquatic communities are largely applicable to the Odon., though the order is not mentioned.

- (14173) ZESSIN, S., 2000. Zeichnungen entomologischer Motive Klasse 5,3 des Goethe-Gymnasiums Ludwigs. *Virgo* 4(1): 104-110. — (Lange Str. 9, D-19230 Jasnitz).

Reproductins of 18 drawings by secondary school students, 11 of these representing various dragonfly motives; with captions, but no other text.

- (14174) ZESSIN, W., 2000. Wolfgang Sippel, Ennepetal: Porträt eines Sammlers und Zeichners von paläo-entomologischen Objekten. *Virgo* 4(1): 67-73. — (Lange Str. 9, D-19230 Jasnitz).

An appreciation of the work of W. Sippel (born 1947), with reproductions of some of his fossil Odon. artwork.

2001

- (14175) BACANOV, A.I., V.N. STOLBUNOVA, I.V. DOVBNYA, N.N. ZHGAREVA & V.V. ZAKONNOV, 2001. Zhivotnoe naselenie zarosley oz. Nero: fauna rastitel'nyh asociatsiy. — The animal population of aquatic vegetation in lake Nero: fauna of some macrophyte associations. *Biol. vnut. Vod* 2001(2): 43-52. (Russ., with Engl. s.). — (Inst. Biol. Inland Waters, Russ. Acad. Sci., RUS-152742 Borok).

Lake Nero is situated in Yaroslavskaia distr. in the Volga R. basin, Russia. 5 odon. spp. are listed from various (specified) types of vegetation.

- (14176) BECHLY, G., C. BRAUCKMANN, W. ZESSIN & E. GRÖNING, 2001. New results concerning the morphology of the most ancient dragonflies (Insecta: Odonoptera) from the Nemurian of Hagen-Vorhalle (Germany). *J. Zool. Syst. Evol. Res.* 39: 209-266. (With Germ. s.). — (Third Author: Lange Str. 9, D-19230 Jasnitz).

The holotype of *Erasipteroides valentini* (Brauckmann) and the paratype of *Namurotypus sippeli* Brauckmann & Zessin are redescribed, and a new specimen of *E. cf. valentini* is described. The new evidence is used to refine the groundplan reconstruction of Odonoptera and the reconstruction of odonatoid phylogeny. 3

hypothetical scenarios regarding the evolution of secondary copulation in modern Odon. are proposed.

- (14177) BEDJANIČ, M., M. JEŽ & M. PLANJŠEK, 2001. *Naravovarstvene smernice za območje občine Črna na Koroškem*. — [Nature conservation directives for the territory of the municipality of Črna-na-Koroškem]. ZVNKD, Maribor. 169 pp. (Slovene). — (First Author: Fram 117/A, SI-2313 Fram).

Cordulegaster bidentata is mentioned from a swamp nr Burjak; Carinthia, Slovenia.

- (14178) BEDJANIČ, M., M. JEŽ & M. PLANJŠEK, 2001. *Naravovarstvene smernice za območje občine Ravne na Koroškem*. — [Nature conservation directives for the territory of the municipality of Ravne-na-Koroškem]. ZVNKD, Maribor. 106 pp. (Slovene). — (First Author: Fram 117/A, SI-2313 Fram).

Includes references to the *Cordulegaster bidentata* occurrence in the upper sections of the Suha and the Jamniški Potok streams; — Carinthia, Slovenia.

- (14179) BEKETOV, M.A., 2001. Predvaritel'naya ocenka i perspektivy issledovaniya vliyaniya ammoniya na lichinok strekoz (Odonata). — [Preliminary assessment and perspectives of ammonia toxicity estimation for dragonfly larvae (Odonata)]. *Aspirant. Sb. novosibirsk. gos. pedagog. Univ.* 2001(1): 88-95. (Russ.). — (P.O. Box 156, RUS-630048 Novosibirsk). In laboratory experiments, median lethal concentrations (LC50) for *Erythromma najas* larvae were at pH 8.7 and 9.2 resp., 160.29 and 43.7 mg/l for $N-NH_4^+$ and 37.99 and 22.00 mg/l for $N-NH_3$. Ammonium ions were rather less toxic than un-ionized form. Larval *E. najas* has a high ammonia tolerance as compared with some other aquatic animals. It is suggested, ionic exchanges may promote the tolerance. A brief review of ammonia toxicity investigations and some suggestions for future experimental work are also provided.

- (14180) BEKETOV, M.A., 2001. Toksichnost' ammoniya pri razlichnyh urovnyah pH dlya lichinok *Erythromma najas* (Odonata). — [Ammonia toxicity to *Erythromma najas* larvae (Odonata) at varying pH levels]. In: A.Yu. Haritonov & L.N. Sivohina, [Eds], *Biological science and education in pedagogical institutions of higher education*, pp. 91-96. Novosibirsk Gos. Pedag. Univ. & Inst. Anim. Syst. Ecol., Russ. Akad. Nauk, Novosibirsk. (Russ.). — (P.O. Box 156, RUS-630048 Novosibirsk).

In laboratory tests, median lethal concentrations (LC50) at pH 7.5 were 58.90 mg/l for total ammonia and 10.42 mg/l for un-ionized ammonia (NH₃). At pH 8.7, these values were resp. 168.0 and 37.80; and at pH 9.2, they were 49.22 and 22.14. The influence of pH on ammonia toxicity is discussed.

- (14181) BITSCH, J., 2001. The arthropod mandible: morphology and evolution, phylogenetic implications. *Annls Soc. ent. Fr.* (N.S.) 37(3): 305-321. (With Fr. s.). — (Lab. Ent., Univ. Paul Sabatier, 118 rte de Narbonne, F-31062 Toulouse Cedex 4). Mainly based on comparative morphology, the review takes into account also the developmental and palaeontological evidence. It has only a passing reference to the Odon.
- (14182) BOIX, D., J. SALA & R. MORENO-AMICH, 2001. The faunal composition of Espolla pond (NE Iberian peninsula): the neglected biodiversity of temporary waters. *Wetlands* 21(4): 577-592. — (Inst. Aquat. Ecol. & Dept. Envir. Sci., Univ. Girona, Campus de Montilivi, Fac. Sci., ES-17071 Girona). The faunal composition, richness, and their determinant factors in a Mediterranean temporary pond (surface 3.1 ha, mean depth 1.3 m), located in the Banyoles karstic region, NE Spain, are analysed. Larval *Lestes viridis* and *Anax imperator* are the sole odon. spp. recorded.
- (14183) BOŽIČ, L., 2001. Pohorje. *Svet Ptice* 7(4): 28-30. (Slovene). — (Pintarjeva 16, SI-2000 Maribor). A brief description of Pohorje Range, NE Slovenia, as a destination for birding trips. A reference is made to *Coenagrion hastulatum* (at present the sole known locality in Slovenia), and *Sympetrum danae* (Črno jezero/lake harbours its largest known population in Slovenia).
- (14184) BRAU, M., M. SCHWIBINGER & F. WEIHRACH, 2001. Die Libellenfauna der Stadt München. *NachrBl. bayer. Ent.* 50(4): 128-137. (With Engl. s.). — (Third Author: Hengelerstr. 9, D-80637 München). 52 spp. were recorded from the territory within the present city limits of Munich, Germany; 41 of these since 1990. An annotated review is presented, and the status of 7 spp. is outlined in detail. — See also OA 14198.
- (14185) CANNINGS, R.A., S.G. CANNINGS & G.G.E. SCUDDER, 2001. Insect collections, surveys and conservation in British Columbia in the 20th century. *J. ent. Soc. Br. Columb.* 98: 17-32. — (Second Author: BC Conserv. Data Cent., P.O. Box 9344 Stn Prov. Govt, Victoria, BC, V8W 9M1, CA). The odon. collections are mentioned of the Royal BC Mus., Victoria (35000 specimens, incl. part of F.C. Whitehouse coll.), and Spencer Ent. Mus., UBC, Vancouver (E.R. Buckell, Cannings pre-1980, and part of F.C. Whitehouse coll.). — The following odon. surveys were conducted recently: S Vancouver Is., the Lower Fraser Valley, the Okanagan Valley, the Peace R.-Fort Nelson Lowlands, the Columbia-Kootenay region (incl. Mountain National Parks), the Cariboo-Chilcotin and Prince George-Robson Valley regions, the Mackenzie and Omineca-Fort St James regions. The relative bibliography is listed. — Having commenced in 1980, the history of insect conservation in BC is short; the main bibliographic references are provided. In 2001, out of 87 odon. spp., 26 taxa were red (endangered, threatened) / blue (vulnerable)-listed, viz. *Calopteryx aquabilis*, *Argia emma*, *A. vivida*, *Enallagma civile*, *E. hageni*, *Ischnura damula*, *Aeshna constricta*, *A. septentrionalis*, *A. tuberculifera*, *Tanypteryx hageni*, *Gomphus graslinellus*, *Ophiogomphus colubrinus*, *Stylurus olivaceus*, *Octogomphus specularis*, *Macromia magnifica*, *Epitheca canis*, *Somatochlora brevicincta*, *S. cingulata*, *S. forcipata*, *S. kennedyi*, *S. septentrionalis*, *Erythemis collocata*, *Leucorrhinia patricia*, *Libellula pulchella*, *Pachydiplax longipennis*, and *Sympetrum vicinum*.
- (14186) CANNINGS, R.A. & G.G.E. SCUDDER, 2001. An overview of systematics studies concerning the insect fauna of British Columbia. *J. ent. Soc. Br. Columb.* 98: 33-59. — (First Author: Royal B.C. Mus., P.O. Box 9815 Stn Prov. Govt, Victoria, BC, V8W 9W2, CA). 87 odon. spp. are known to occur in the Province. For the highlights of systematic and ecological studies see OA 14238.
- (14187) CARTER, J.L. & V.H. RESH, 2001. After site selection and before data analysis: sampling, sorting, and laboratory procedures used in stream benthic macroinvertebrate programs by USA state agencies. *Jl N. Am. benthol. Soc.* 20(4): 658-682. — (First Author: US Geol. Surv., 345 Middlefield Rd, MS 465, Menlo Park, CA 94025, USA). A survey of methods used by US state agencies for collecting and processing benthic macroinvertebrate samples from streams was conducted by questionnaire;

- 90 responses were received and used to describe trends and methods. The taxonomic level used for identifying organisms varied among taxa; Ephemeroptera, Plecoptera and Trichoptera were generally identified to a finer taxonomic resolution (genus and sp.) than other taxa. In general, adult stages of aquatic insects were not identified, which is considered unfortunate, because they can be used to give specific names to the immature taxa collected.
- (14188) DE KNIJF, G., 2001. Libellen in Vlaams-Brabant: stand van zaken van het verspreidingsonderzoek. — [Dragonflies of the province of Vlaams-Brabant (Belgium): current status of mapping efforts]. *Brakona Jaarb.* 2000: 52-57. (Dutch). — (Inst. Nat. Cons., Kliniekstraat 25, B-1070 Brussel). With 2094 records of 42 spp., the odon. fauna of the province is considered inadequately explored; 8 spp. were not sighted since 1990. An analysis is presented of the hitherto available information, and the lacunae in the knowledge are pointed out.
- (14189) ENDERSBY, I., 2001. Lentic habitat for *Rhadinosticta simplex* (Odonata). *Victorian Ent.* 31(4): 55. — (56 Looker Rd, Montmorency, Vic. 3094, AU). In the works listed in OA 6596 and 8155, *R. simplex* is noted from streams and rivers. Here, a ♂ is recorded from the man-made Pecks Dam pond (Banyule, Victoria, Australia), indicating its occurrence in lentic habitats as well. The actual breeding of this low vagility sp. in stagnant waters still requires a confirmation.
- (14190) ENDERSBY, I., 2001. More nomenclatural changes affecting Victoria's Odonata. *Victorian Ent.* 31(2): 26-27. — (56 Looker Rd, Montmorency, Vic. 3094, AU). Notes on *Austrocordulia refracta juratzkai* Theischinger and *Archaeosynthemis macrostigma orientalis* (Hag.).
- (14191) ERJAVECIA. Newsletter of the Slovene Odonatological Society. (ISSN 1408-8185), No. 12 (dated 31 Oct. 2001, mailed Jan. 2002). (Slovene). — (c/o M. Bedjanič, Fram 117/A, SI-2313 Fram). The feature article (pp. 1-4), by M. Bedjanič, is this time devoted to Dr Anton Schweighofer (1855-1933). — Other articles: Šalamun, A. & M. Bedjanič: A spring day in the Ličenca valley nr Poljčane (pp. 5-8); — Bedjanič, M.: Report of the entomology group at the Youth Research Workshop in Mislinja, 2001 (pp. 8-12); — Šalamun, A.: The Semič Research Workshop of Biology students, 2001 (pp. 12-13); — Bedjanič, M.: Report of the entomology group at the Youth Research Workshop in Makole, 2001 (pp. 14-16); — Pirnat, A.: New localities for rare and threatened dragonfly species in NE Slovenia (pp. 17-18); — Summer rumbling in Istria (pp. 19-20); — Mihoković, N. Second Odonatological Symposium of the World Dragonfly Association, Gällivare, Sweden (pp. 20-21; in Croatian); — Bedjanič, M.: Dragonflies in literature (pp. 23-24; text presentation from R. Žener's *Akvarij* [1964], and from M. Kiauta's bilingual *Prvi žafran / The first crocus* [2000]). — In the standard bibliographic section, compiled by M. Bedjanič, Nos 383-412 are added to the odonatol. bibliography of Slovenia (pp. 25-28).
- (14192) FET. V. & G. BECHLY, 2001. Liochelidae, fam. nov. (Scorpiones): proposed introduction as a substitute name for Ischnuridae Simon, 1879, as an alternative to the suggested amendment of Ischnurinae Fraser, 1957 (Insecta, Odonata) to Ischnurinae in order to remove homonymy. *Bull. zool. Nomencl.* 58(4): 280-281. — (First Author: Dept Biol. Sci., Marshall Univ., Huntington, 25755, USA). This is an alternative to the proposal described in OA 13281.
- (14193) GARDNER, S.C., C.E. GRUE, W.W. MAJOR, III & L.L. CONQUEST, 2001. Aquatic invertebrate communities associated with purple loosestrife (*Lythrum salicaria*), cattail (*Typha latifolia*), and bulrush (*Scirpus acutus*) in central Washington, USA. *Wetlands* 21(4): 593-601. — (Second Author: Washington Coop. Fish & Wildl. Unit, Sch. Aquat. & Fish. Sci., Univ. Washington, Box 355020, Seattle, WA 98195, USA). 3 of the 4 insect orders collected, viz. Dipt., Odon. and Ephemeropt., had significantly smaller average lengths in the *Lythrum* plots compared to the *Typha* plots. The average length of Coleopt. also tended to be smaller, but the difference was not statistically significant. Vegetation type did not influence the abundance of any of the insect taxa. A species list is not provided.
- (14194) GIANTI, M., 2001. Segnalazioni faunistiche italiane. *Coenagrion mercuriale* ssp. *castellani* Roberts, 1948 (Odonata: Coenagrionidae). *Boll. Soc. ent. ital.* 133(3): 267. — (Via Divisione Cuneese 17, I-12023 Garaglio/CN). The ssp. is for the first time recorded for Piemonte, N Italy (1 ♂, 2 ♀, Salmour/CN, 13-VI-1999), and its distribution in Italy is outlined.

- (14195) GOOD, J.A., 2001. Farms as biogeographical units. 1. Habitat and faunal changes as influenced by farmer decision-making on a mixed farm in South Cork, Ireland. *Bull. Ir. biogeogr. Soc.* 25: 220-247. — (Glinny, Riverstick, Co. Cork, Ireland).
Sympetrum striolatum occurred in the semi-natural section of the farm only.
- (14196) GORETTI, E., D. CECCAGNOLI, G. LA PORTA & M.V. DI GIONANNI, 2001. Larval development of *Aeshna cyanea* (Müller, 1764) (Odonata: Aeshnidae) in central Italy. *Hydrobiologia* 457: 149-154. — (Last Author: Depto Biol. Anim. & Ecol., Univ. Perugia, Via Elce di Sotto, I-06123 Perugia).
 A 3-yr investigation was carried out at Monte Malbe, W of Perugia. The instars were discriminated by size and scatter plot, based on measurements of labium length, head width, metafemur length, forewing-pad length and total larval body length. The prolarvae instar was derived by Dyar's law. The mean increase value index between following and previous instar was between 1.26 and 1.33 for isometric variables, and around 1.96 for the wing-pad allometric variable. *A. cyanea* entered diapause mainly at the F-2 instar, placing it almost intermediate between the southern Spain populations, which usually overwintered in the F-3 instar, and those of England and central Europe, who spent their last winter in F-1. *A. cyanea* appeared to be a 'summer species', sensu Corbet, and the population studied had a semivoltine life-cycle.
- (14197) HÄMÄLÄINEN, M. & H. KARUBE, 2001. *Rhinocypha oreia* spec. nov., a new damselfly from Vietnam (Odonata: Chlorocyphidae). *Zool. Meded. Leiden* 75(23): 409-412. — (First Author: Sunankalliontie 13, FIN-02760 Espoo).
 Both sexes are described and illustrated. Holotype ♂ Vinh Phu prov., Mt tam Dao, 19-V/2-VI-1993; deposited in Kanagawa Pref. Mus. Nat. Hist., Odawara. The peculiar wing colour pattern of the new sp. is emphasized.
- (14198) HESS, M. & U. HECKES, 2001. Beitrag zur Wasserinsektenfauna der Bäche und Quellen im Stadtgebiet München (Ephemeroptera, Plecoptera, Heteroptera, Coleoptera, Trichoptera u.a.). *NachrBl. bayer. Ent.* 50(4): 113-127. (With Engl. s.). — (Okokart, Wasserburger Landstr. 151, D-81827 München).
 Includes a commented list of 8 odon. spp., occurring in the streams of the Munich city area, Germany. — For an exhaustive regional list, see OA 14184.
- (14199) HOESS, R., 2001. Die Libellen (Odonata) des Giswilriedes, Kanton Obwalden. *Ent. Ber. Luzern* 46: 129-146. — (Normannenstr. 35, CH-3018 Bern).
 The Giswilried is situated at the upper edge of Sarnar Lake, canton Obwalden. With its 51 evidenced spp. (25 of which redlisted), this is one of the 2 wetlands, harbouring the richest odon. fauna in Switzerland. Of particular interest are *Coenagrion mercuriale*, *Ceriatrigon tenellum* and *Sympetrum pedemontanum*. The fauna was explored during 1990-2001; 5 of the recorded spp. are new for the canton.
- (14200) HOUSE, N.L., 2001. Key to nymphs and nymphal exuviae of Galápagos Anisoptera, excluding *Erythemis*. In: S.B. Peck, *Smaller order of insects of the Galápagos Islands, Ecuador: evolution, ecology, and diversity*, pp. 118-119. NRC Research Press, Ottawa/ON, CA. ISBN 0-660-18284-X. — (Dept Biol., Carleton Univ., Ottawa, ON, K1S 5B6, CA).
 The aeshnid and libellulid spp. are keyed.
- (14201) JUEG, U., 2001. Saitenwürmer (Nematomorpha) als Insektenparasiten. *Virgo* 5(1): 61-66. — (Schweriner Allee 16, D-19288 Ludwigslust).
Euchordodes libellulovivens is listed as a libellulid parasite from Lietzensee nr Berlin, Germany.
- (14202) KLAUSNITZER, B., 2001. Gemeinschaftsjagd von *Aeshna mixta* Latreille, 1805 in einem Naturgarten in der Oberlausitz. *Ent. Nachr. Ber.* 45(2): 137-138. — (Lannerstr. 5, D-01219 Dresden).
 In a garden in Oppitz, distr. Bautzen, E Germany (alt. ca 800 m) peculiar swarms (150-500 individuals) of *A. mixta* were observed during 7 yr. They occurred from late July to mid Aug., usually late in the afternoon. The dragonflies were mostly flying 0.5-1.5 m above the ground. As it appears, they were attracted by emerging ♀♀ *Lasius flavus*, on which they fed. Higher up, above the dragonflies, there were swallows, also feeding on the ants. Detailed circumstantial evidence is presented.
- (14203) KOTARAC, M., 2001. Kačji pastirji (Odonata). In: *Raziskava razširjenosti evropsko pomembnih vrst v Sloveniji*, pp. 219-243. Prir. Muz. Slovenije, Ljubljana. (Slovene). — (Author: CKFF, Zemljemerska 10, SI-1000 Ljubljana).
 This is the Odon. chapter in the monumental (683 pp.) work on the status and distribution in Slovenia of the

- spp. of European significance, sponsored by the Government of Slovenia, and based on all published information and on the evidence from most of the known private and public collections. — The spp. treated are: *Coenagrion mercuriale*, *Gomphus flavipes*, *Lindenia tetraphylla* (all recorded incidentally or at present probably extinct), *Ophiogomphus cecilia*, *Aeshna viridis*, *Leucorrhinia caudalis*, and *L. pectoralis*.
- (14204) KUHN, K., 2001. Libellen am Nördlichen Lech. *Ber. naturw. Ver. Schwaben* (Sonderber.: *Der Nördliche Lech*): 138-146. ISBN 3-89639-271-9. — (Ravenspurgerstr. 7, D-86150 Augsburg).
The odon. fauna (41 spp.) of the upper section of the Lech R. (Bavaria, Germany) is outlined. The spp. are listed and annotated, and a brief history of the recording (since 1894) is presented.
- (14205) LANGE, L., 2001. Insektenfunde im Süden des Kreises Parchim. *Virgo* 5(1): 47-54. — (Deichreihe 21, D-25599 Wewelsfleth).
The records of 28 odon. spp. are listed; — Parchim distr., Mecklenburg-Vorpommern, E Germany.
- (14206) LIBELLULA. Zeitschrift der Gesellschaft deutschsprachiger Odonatologen (GdO). (ISSN 0723-6514), Vol. 20, No. 3/4 (Dec. 2001). (With Engl. s's). — (c/o Ms I. Schrimpf, Heimbühlstr. 32, D-72768 Reutlingen).
Heimeyer, F., E. Miller & J. Miller: Winterbeobachtungen an *Sympetma paedisca* (Odonata: Lestidae) (pp. 103-113); — *Brockhaus, T.*: Untersuchungen zur Individualentwicklung und Populationsdynamik der Imagines von *Sympetrum pedemontanum* (Odonata: Libellulidae) (pp. 115-130); — *Werzinger, S. & J. Werzinger*: Ganz schön flexibel! Zur Entwicklung von *Anax parthenope* in Bayern (Odonata: Aeshnidae) (pp. 131-148); — *Weihrauch, F.*: Entwicklung von *Onychogomphus f. forcipatus* in einem Kleingewässer (Odonata: Gomphidae) (pp. 149-154); — *Leipelt, K.G., R. Sommer & A. Martens*: Territorialität bei *Oxygastra curtisii* (Odonata: Corduliidae) (pp. 155-170); — *Wildermuth, H.*: Zuckmückenlarven als Epizoen von *Somatochlora metallica* (Diptera: Chironomidae; Odonata: Corduliidae) (pp. 171-174); — *Reder, G.*: Späte Flugzeit von *Gomphus flavipes* am nördlichen Oberrhein (pp. 175-178).
- (14207) LINDENIA. Notiziario dell'Ufficio nazionale italiano della Società odonatologica internazionale, Napoli, No. 35 (21 Dec. 2001). — c/o Dr C. D'Antonio, Via A. Falcone 386/b, I-80127 Napoli).
In addition to some notifications and reader requests, it includes a note, *Utzeri, C.*: Il sapore delle libellule [On the palatability of dragonflies] (pp. 149-150).
- (14208) MACHADO, A.B.M., 2001. Studies on neotropical Protoneuridae. 11. Two new species of *Forcepsioneura* Lencioni (Odonata: Zygoptera) with a key to males of the genus. *Revta bras. Zool.* 18(3): 845-854. — (Depto Zool., Inst. Cien. Biol., UFMG, Caixa Postal 486, BR-31270-901 Belo Horizonte, MG).
F. haerteli sp. n. (holotype ♂: Brazil, Santa Catarina, Blumenau, 2-I-2001; deposited in Author's colln), and *F. westfalli* sp. n. (holotype ♂: Ecuador, Limoncocha, 15-XI-1980; deposited in FSCA, Gainesville/FL, USA) are described and illustrated. They are referable to the *sancta* and *ephippiger* groups, resp.
- (14209) MALTEN, A., S. WAGNER, D. BONSEL & M. FEHLOW, 2001. [184. Jahresbericht der Senckenbergischen Naturforschenden Gesellschaft]: Stadtökologie & Biotopkartierung. *Natur Museum* 131(9): 296-297. — (Senckenberganlage 25, D-60325 Frankfurt/Main).
Includes a photographic record of *Aeshna isosceles*, from Stadtwald Frankfurt/Main, Germany.
- (14210) MANGER, R., 1999-2001. [Annual reports on the odonate fauna of the dune localities, Grafelijkheidsduinen and Zwanenwater, Den Helder region, Noord Holland prov., the Netherlands]. Manger, Assen. (Dutch). — (Available from the Author: Stoepveldsingel 55, NL-9403 SM Assen).
Grafelijkheidsduinen: 1999 (7 pp.), 2000 (2 pp.); — Zwanenwater: 1999 (7 pp.), 2000 (4 pp.), 2001 (4 pp.). — Annual status of spp. and communities in various ponds are stated. It is tentatively assumed that cattle grazing probably has a beneficial effect on the odon. fauna.
- (14211) MANGER, R., 2001. De Vroege Glazenmaker *Aeshna isosceles* in Zwanenwater. — [Aeshna isosceles in Zwanenwater, Noord Holland prov., the Netherlands]. *Op de Kop* 6(3): 12. (Dutch). — Stoepveldsingel 55, NL-9403 SM Assen).
3 individuals (1 freshly emerged) were sighted on 16-VII and 11-VIII-2001. These are the first records of this vulnerable sp. from this locality.
- (14212) MANGER, R., 2001. *Libellencursus*. — [Dragonfly Workshop]. KNNV, Den Helder. 11 pp.,

48 col. figs incl. (Dutch). — (Available from the Author: Stoepveldsingel 55, NL-9403 SM Assen; — price: € 7.50 net).

A "handbook" for the Workshop, the objective of which was to get acquainted with, and to learn to recognize in the field the common spp. of the Den Helder area, Noord Holland prov., the Netherlands.

- (14213) MANGER, R., 2001. Libellenseizoen 2001 in Den Helder. — [The 2001 dragonfly season in Den Helder, Noord Holland prov., the Netherlands]. *Op de Kop* 6(4): 9. (Dutch). — (Stoepveldsingel 55, NL-9403 SM Assen).

Some highlights, with reference to *Coenagrion pulchellum*, *Aeshna mixta*, *Anax imperator*, *Leucorrhinia rubicunda*, *Libellula depressa*, *Sympetrum danae*, *S. flaveolum* and *S. striolatum*.

- (14214) MANGER, R., 2001. Resultaat actie Vuurjuffer. — [Results of the *Pyrrhosoma nymphula* inquire]. *Op de Kop* 6(3): 17-19. (Dutch). — (Stoepveldsingel 55, NL-9403 SM Assen).

The inquire (through newspapers etc.) on the occurrence of the sp. in the Noordkop area, Noord Holland prov., the Netherlands yielded 65 responses, mostly by garden pond owners. Mostly were reported 2-3 (max. 6) individuals per pond; all within the period, 30 Apr.-26 June. The smallest breeding site was a container of 50x30 cm, 2 cm deep. Some individuals were seen perching on drying linen and in similar situations. At present, the sp. is apparently widespread in the Noordkop dunes. Probably it has populated the dunes from the fens in the provinces of Utrecht and Zuid Holland. — In local newspapers, the following articles have appeared on this project (all in 2001): *Noordhollands Dagblad* (Helderse Courant), issues of 29 March, 10 May and 25 June; — *Den Helder op Zondag*, issue of 8 Apr., pp. 3 & 31; — *Noordhollands Weekblad* (Den Helder), issues of 17 Apr. (with Author's portrait) and 19 June.

- (14215) MANGER, R., 2001. Voortplanting van Platbuik in Helderse tuinvijver. — [Reproduction of *Libellula depressa* in a garden pond in Den Helder]. *Op de Kop* 6(3): 19. (Dutch). — (Stoepveldsingel 55, NL-9403 SM Assen).

A record from a pond, constructed in 1999; Noord Holland prov., the Netherlands.

- (14216) MARGOLIS, B.E., R.L. RAESLY & D.L. SHOMWAY, 2001. The effects of beaver-created

wetlands on the benthic macroinvertebrate assemblages in two Appalachian streams. *Wetlands* 21(4): 554-563.

— (First Author: New Jersey Dept. Envir. Prot., Bureau Freshw. & Biol. Monitoring, P.O. Box 427, Trenton, NJ 08625-0427, USA).

The effects of beaver impoundments on the benthic macroinvertebrate assemblages were examined in 2 small streams in Somerset Co., PA and Garrett Co., MD, resp. *Cordulegaster* was among the dominant taxa above the impoundment, *Chromagrion*, *Calopteryx*, *Boyeria*, *Erythemis* and *Plathemis* occurred below the impoundment, and *Gomphus* and *Epithea* within it. The presence of submerged aquatic vegetation was responsible for the *Chromagrion* and *Boyeria* occurrence below the impoundments. Generally, taxonomic and functional changes in benthic macroinvertebrate assemblages of the beaver-altered streams were a results of direct (impoundment) and indirect (changes in temperature, water chemistry, plant growth) alterations of the stream environment.

- (14217) MATERIAŁY ZJAZDOWE 8 OGÓLNO-POLSKIE WARSZTATY BENTOLOGICZNE — [Abstracts of papers of the 8th Polish Benthology Workshop], Warszawa-Mikolajki, 9-12 May 2001. (Polish).

[Odon. papers:] Domek, P.: Comparison of qualitative and qualitative macrozoobenthos structure in some *Lobelia dormanna* lakes (pp. 2-3); — Gronowski, T.: Infusorian fauna (Ciliata) on dragonfly larvae of Łukajno Lake (p. 12); — Jakubik, B.: Macroinvertebrates of the Mala Bystrzyca river in view of selected environmental features (pp. 13-15); — Tończyk, G.: Analysis of the food of dragonfly larvae (Odonata) as an element in aquatic ecosystem assessment (pp. 40-42).

- (14218) MERCURIALE. Zeitschrift der Schutzgemeinschaft Libellen in Baden-Württemberg. (ISSN 1618-9124), No. 1 (Dec. 2001). Annual subscription: € 7.50 net. — (Orders to: Ms U. Stephan, Im Westengarten 12, D-79241 Ihringen).

Kunz, B. & H. Hunger: Editorial (p. 1); — Hostettler, K.: Der Kleine Blaupfeil (*Orthetrum coerulescens*) in Vorarlberg: Rückblick auf zehn Jahre Feldarbeit (pp. 2-4); — Kunz, B.: Suchstrategien für in Baden-Württemberg (vermutlich) unterrepräsentierte Libellenarten (pp. 4-8); — Müller, J.M.: Neue Erkenntnisse zur Ökologie und Verbreitung der Sibirischen Azurjungfer *Coenagrion hylas* (pp. 9-12); — Röhn, C.: Libellen des Hepbacher-Leimbacher Rieds (pp. 12-14);

- *Schmidt, B.*: Habitate, Fortpflanzungsverhalten und Eiablagestrategien der Südlichen Mosaikjungfer (*Aeshna affinis*) im Eriskircher Ried (Bodensee) (pp. 14-18); — *Sternberg, K. & R. Buchwald*: 20 Jahre "Schutzgemeinschaft Libellen in Baden-Württemberg" von den ersten Anfängen bis Grundlagenwerk und Vereinsgründung (pp. 19-23); — *Kurzbeiträge* (pp. 23-28); — *Termine 2002* (pp. 28-29); — *Vereinsnachrichten* (pp. 30-36).
- (14219) **MERMOD-FRICKER, F.**, 2001. Bibliographie concernant la faune entomologique suisse, 1999. *Bull. romand Ent.* 19(2): 69-81. — (Centre suisse Cartogr. Faune, Terreaux 14, CH-2000 Neuchâtel). Includes 5 odonotol. titles.
- (14220) **MITRA, T.R.**, 2001. An appeal. *Sci. & Culture, Calcutta* 67(7/8): 252. — (18/1 Dakshin Para Rd, Calcutta-700028, India).
A request to the Indian workers, in the journal of the Indian Science News Association, to assist in the preparation of Odonatological Abstracts by regularly providing (either to the Author or to the Ed. of *Odonatologica*) the reprints/copies of publications containing any information on Odon.
- (14221) **MONNERAT, C.**, 2001. Prolongement de la période de vol de certains odonates en octobre 2001. *Bull. romand Ent.* 19(2): 95-106. (With Engl. s.). — (Centre suisse Cartogr. Faune, Terreaux 14, CH-2000 Neuchâtel).
An extension of the adult period in W. Switzerland was noticed in Oct. 2001 in several spp., most particularly in *Enallagma cyathigerum*, *Ischnura elegans* and *I. pumilio*. Bad weather conditions in Sept. did not cause a significant mortality, and favourable weather in Oct. favoured the adult longevity. The 2001 evidence is compared with 4990 observations made during 1989-2000, 99 of which were made in Oct.
- (14222) **MOROZ, M., S. CZCHOROWSKI & K. LEWANDOWSKI**, 2001. Vodnye nasekomye (Insecta: Ephemeroptera, Odonata, Heteroptera, Trichoptera) Berezinskogo biosfernogo zapovednika. — Aquatic insects (...) of the Berezinsky Biosphere Reserve. *Parki narod. Rezerw. pryzr.* 20(4): 75-81. (Russ., with Eng. & Pol. s's). — (First Author: Inst. Zool., Belaruss. Acad. Sci., Akademicheskaya 27, Minsk-220072, Belarussia).
Includes a list of 8 odon. spp., recorded during 1997-2000; — Belarussia.
- (14223) **MULI, J.R. & K.M. MAVUTI**, 2001. The benthic macrofauna community of Kenyan waters of Lake Victoria. *Hydrobiologia* 458: 83-90. — (Second Author: Dept Zool., Univ. Nairobi, P.O. Box 30197, Nairobi, Kenya).
The New World *Aphylla* and *Didymops*, and the holarctic *Somatochlora* and *Libellula* are among the 6 odon. genera listed for Lake Victoria. Considering this kind of misidentifications, the paper is of little use.
- (14224) **MUNGENAST, F.**, 2001. Die Libellen des Gurgltales bei Imst, Nordtirol (Insecta: Odonata): Eine faunistisch-ökologische Untersuchung. *Veröff. Landesmus. Ferdinandeum* 81: 113-153. (With Engl. s.). — (Stadtplatz 12, A-6460 Imst).
35 spp. were recorded (1996-1999) in the Gurgl Valley, between Imst and Nassereith, N Tyrol, Austria. Of particular interest is the occurrence of *Nehalennia speciosa* (Kropfsee) and *Aeshna subarctica* (Sinnesbrunn, alt. 1500 m).
- (14225) **[NEEDHAM, J.G., M.J. WESTFALL & M.L. MAY] GROLL, E.**, 2001. [Buchbesprechung]. Dragonflies of North America. *Beitr. Ent.* 51(2): 374.
A brief descriptive book review of the volume listed in OA 13710.
- (14226) **NORMA-RASHID, Y., A. MOHD-SOFIAN & M. ZAKARIA-ISMAIL**, 2001. Diversity and distribution of Odonata (dragonflies and damselflies) in the fresh water swamp lake Tasek Bera, Malaysia. *Hydrobiologia* 459: 135-146. — (Inst. Biol. Sci., Fac. Sci., Univ. Malaya, MY-50603 Kuala Lumpur, Malaysia).
35 spp. are added to the fauna of the lake (Peninsular Malaysia), bringing its status up to 78 spp. These are listed, and various biological aspects, such as habitat clustering and temporal activity profile, are discussed.
- (14227) **OTT, J.**, 2001. Expansion of Mediterranean Odonata in Germany and Europe: consequences of climatic changes. In: G.-R. Walther, C.A. Burga & P.J. Edwards, [Eds], "*Fingerprints*" of climate change: adapted behaviour and shifting species ranges, pp. 89-111. Kluwer/Plenum, New York-Boston-Dordrecht-London-Moscow. ISBN 0-306-46716-X. — (L.U.P.O., Friedhofstr. 28, D-67705 Trippstadt).
A recent and significant northward range expansion is shown in 14 European spp. of Mediterranean provenance; in some of them a vertical expansion is also evident, and a recent increase of the northern

populations is apparent. Some biological and ecological consequences of the phenomenon are discussed, and some consequences and future scenarios for some spp. and for the aquatic systems as a whole are pointed out.

- (14228) OTT, J., 2001. Zum Einsatz von Libellen als Bioindikatoren und Monitoringorganismen in Feuchtgebieten: das Beispiel einer geplanten Wasserentnahme im Naturschutzgebiet "Täler und Verlandungszone am Gelterswoog" (Biosphärenreservat Pfälzerwald). *Annl. scient. Réserve Biosphère transfrontière Vosges Nord-Pfälzerwald* 9: 151-177. (With Engl. & Fr. s's). — (L.U.P.O., Friedhofstr. 28, D-67705 Trippstadt). The odon. fauna (33 spp.) of the valley system, Kolbental-Erlental-Walkmühlthal, SW of Kaiserslautern (Rheinland-Pfalz, W Germany) has been monitored since 1998. So far it has not suffered seriously by human activities; its mosaic-type of habitats harbour a relatively constant number of indigenous spp., and the annual turnover of spp. throughout the area is low. *Coenagrion hastulatum*, *Somatochlora arctica*, *Orthetrum coerulescens* and *Leucorrhinia dubia* are among the significant spp. The advantages of the odon. as bio-indicators are outlined and discussed.
- (14229) OWUSU, H., 2001. *Indianse symbolen*. — [Symbol of North American First Nations]. Verba, Hoevelaken. 320 pp. ISBN 90-5513-447-3. Softcover (14.3×19.0 cm). Price: € 7.- net. (Dutch). — Original German edn: 1997, *Symbole der Indianen Nordamerikas*, Schirmer, Darmstadt. Among the totem animals, the dragonfly is considered a creature of winds; it stands for illusion and change. Its glittering wings are bringing up in the mind the reminiscence of magic times, making people conscious herewith that the world only seems a reality. The lesson of the dragonfly is that in the world there is nothing as it seems, therefore it is necessary to avoid illusions. In addition, the dragonfly is passing on the messages of the elementary creatures and those of plant spirits. If one desires to change oneself, the dragonfly should be invoked.
- (14230) PECK, S.B., 2001. *Smaller orders of insects of the Galápagos Islands, Ecuador: evolution, ecology, and diversity*. NRC Research Press, Ottawa/ON. XII+278 pp. ISBN 0-660-18284-X. — (Author: Dept Biol., Carleton Univ., Ottawa, ON, K1S 5B6, CA; — Publishers: Natn. Res. Council Can., Ottawa, ON, K1A 0R6, CA). The fauna (9 spp.) is reviewed and (adults and larvae) keyed. *Ischnura hastata* is the sole zygote, *Aeshna galapagoensis* is endemic, 8 spp. are indigenous. — See also OA 9158 and 11773.
- (14231) RAMŠAK, L., 2001. *Ordo Odonata (kačji pastirji)*. Individualna naloga. Dept. Biol., Biotech. Fac., Univ. Ljubljana. 7 pp. (Slovene). — (Šmartno 165/a, SI-2383 Šmartno-pri-Slovenj-Gradcu). Includes records for 14 spp. (Carinthia, Slovenia), *Aeshna caerulea* is of particular interest.
- (14232) RAO, R.J., 2001. Biological resources of the Ganga river, India. *Hydrobiologia* 458: 159-168. — (Sch. Stud. Zool., Jiwaji Univ., Gwalior-474011, U.P., India). The taxa from 5 odon. fam. are (mostly genus-wise) listed from the Rishikesh-Kanpur section of the river, India. The Ganga R. is under constant threat of pollution by sewage and industrial wastes, disposal of dead bodies, deforestation, excessive use of fertilizers and pesticides, bathing, pilgrimage and water development programs. For biological restoration, an Action Plan has been set up by the Indian Government.
- (14233) ROLDAN PEREZ, G., J.A. POSADA & J.C. GUTIÉRREZ, 2001. *Estudio limnológico de los recursos hídricos del Parque de Piedras Blancas*. Acad. Colombiana Cien. Exactas, [...], Bogotá. x+152 pp. ISBN 958-9205-19-4. — (Mailing addresses not stated). The locality is situated in the Cordillera central, Colombia (alt. 2200-2600 m). 13 odon. taxa are listed, mostly on generic level only.
- (14234) ROLFF, J., 2001. Evolutionary ecology of water mite-insect interactions: a critical appraisal. *Arch. Hydrobiol.* 152(3): 353-368. — (Dept Anim. & Plant Sci., Univ. Sheffield, Sheffield, S10 2TN, UK). Water mites are ubiquitous parasites in freshwater ecosystems. Their host-finding success depends on behaviour and condition of the host. Hydrachnidian parasitism lowers host fitness in various ways, it increases its mortality, decreases its fecundity, etc. ♂ and ♀ hosts and different spp. (though closely related) are affected differently. The possibility of a host-parasite co-evolution is discussed.
- (14235) ROLFF, J., P. BRAUNE & M.T. SIVA-JOTHY, 2001. Ectoparasites do not affect ejaculate volume in the dragonfly *Coenagrion puella*. *Physiol. Ent.* 26(4): 315-319. — (First Author: Dept Anim. & Plant Sci., Univ. Sheffield, Sheffield, S10 2TN, UK).

- C. puella* adults are parasitized frequently by ectoparasitic water mites. In an experimental study of the parasite load, the influence of parasite burden on host sperm volume was studied. Infection with ectoparasitic *Arrenurus cuspidator* did not affect sperm volume in the seminal vesicle (ejaculate volume). It is concluded that water mite parasitism does not affect ♂ fitness in *C. puella* by reducing sperm production.
- (14236) RUCKDESCHEL, W., 2001. Die Frühgeschichte der Münchner Entomofaunistik. *NachrBl. bayer. Ent.* 50(4): 102-105. — (Westerbuchberg 67, D-81477 Uebersee).
Includes a reference to the odonatol. work of A. Bilek.
- (14237) SAIMOIRAGHI, G., B. GUMIERO, A. PASTERIS, S. PRATO, C. BONACINA & G. BONOMI, 2001. Breakdown rates and macroinvertebrate colonisation of alder (*Alnus glutinosa*) leaves in an acid lake (Lake Orta, N Italy), before, during and after a liming intervention. *J. Limnol.* 60(1): 127-133. — (First Author: Dipto Biol. Evol. Sperimentale, Univ. Bologna, Via Selmi 3, I-40126 Bologna).
To test the effectiveness of the liming intervention, the speed of leaves decay and of colonisation processes, alder leaves were placed on the bottom of the lake (at -3 and -18 m depth), and recovered in appropriate time intervals. The experiment took place during 3 successive winters, viz. 1988/89 (pre-liming), 1989/90 (liming), and 1990/91 (post-liming). Alder leaves, which are known to have a medium to high decaying speed in a number of aquatic environments, behave in Lake Orta as a low speed sp. The species richness of colonising benthic fauna is low; the community is made up almost exclusively of Chironomidae. In the pre-liming period, the odon. were recovered from -3 and -18 m depth, during all 3 periods *Coenagrion* sp. larvae occurred at -3 m only.
- (14238) SCUDDER, G.G.E., K.M. NEEDHAM, R.D. KENNER, R.A. CANNINGS & S.G. CANNINGS, 2001. Aquatic insects in British Columbia: 100 years of study. *J. ent. Soc. Br. Columb.* 98: 61-81. — (First Author: Spencer Ent. Mus., Dept Zool., Univ. Br. Columbia, Vancouver, BC, V6T 1Z4, CA).
At present, Odon. are the best known aquatic insect order in the Province. Their exploration history is briefly outlined since 1912, with emphasis on the recent collections and inventories. All available BC odon. records are databased, georeferenced, and mapped.
- (14239) SHIVOGA, W.A., 2001. The influence of hydrology on the structure of invertebrate communities in two streams flowing into Lake Nakuru, Kenya. *Hydrobiologia* 458: 121-130. — (Dept Envir. Sci., Egerton Univ., P.O. Box 536, Njoro, Kenya).
Stream fauna communities were studied in the Baharini Springbrook and the Njoro R. The encountered odon. are stated as "*Calopteryx* sp." and "*Brachythemis* sp.", both from the Baharini perennial brook only.
- (14240) SIVA-JOTHY, M.T., Y. TSUBAKI, R.E. HOOPER & S.J. PLAISTOW, 2001. Investment in immune function under chronic and acute immune challenge in an insect. *Physiol. Ent.* 26(1): 1-5. — (First Author: Dept Anim. & Plant Sci., Univ. Sheffield, Sheffield, S10 2TN, UK).
The relationship between the chronic burden of mid-gut parasites (eugregarine trophozoites) and the effect of an acute haemolymph challenge (a nylon insert) on 2 important insect immune effector systems, viz. phenol oxidase (PO) and the encapsulation response, were investigated in a field population of *Mnais costalis*. PO levels in the haemolymph, and the magnitude of the encapsulation response were maintained, regardless of chronic and subsequent acute experimental immune challenges. The maintenance of these effector systems is therefore probably an important life-history requirement in these damselflies. Investment in mid-gut PO levels was significantly negatively related to the animal's chronic parasite burden after an acute experimental challenge in the haemolymph, suggesting that maintaining PO levels across two physiological compartments (haemolymph and mid-gut) is costly. The results suggest that the immune effector system activity in different physiological compartments in an insect's body is affected by chronic parasite burdens in the face of the demands imposed by an acute immune insult.
- (14241) SOUTER, N.J. & W.D. WILLIAMS, 2001. A comparison of macroinvertebrate communities in three South Australian streams with regard to reintroduction of the platypus [*Ornithorhynchus anatinus*]. *Trans. R. Soc. S. Aust.* 125(2): 71-82. — (First Author: Sch. Biol. Sci., Flinders Univ., Bedford Park, SA 5042, AU).
The invertebrate benthos of Scott Creek (Mt Lofty Ranges, South Australia) was assessed to determine whether it could sustain a population of platypus, which has been locally extinct for ca 100 yr. The benthic fauna is compared to that of Rocky R. and Breakneck R. on Kangaroo Is., where platypus has been introduced. The odon. are among key food groups; 7 spp. are listed for

some or all 3 streams.

- (14242) SUHLING, F. & S. LEPKOJUS, 2001. Differences in growth and behaviour influence asymmetric predation among early-instar dragonfly larvae. *Can. J. Zool.* 79: 854-860. (With Fr. s.). — (Zool. Inst., Techn. Univ. Braunschweig, Fasanenstr. 3, D-38092 Braunschweig).
Libellulid dragonflies lay large egg clutches. When eggs of 2 or more spp. are deposited at the same time and patch, one can expect a high density of early-instar larvae. Thus, interspecific interactions should be evident. The interaction was studied in *Sympetrum fonscolombii* and *Orthetrum cancellatum*, which typically co-occur in French rice fields. The laying of egg clutches of the 2 spp. at the same time and site was experimentally simulated. Survival of *O. cancellatum* was reduced, compared with that of controls without *S. fonscolombii* and also with that of *S. fonscolombii* in the 2-spp. treatment. At the end of the experiment, mean head width of *S. fonscolombii* was greater than in *O. cancellatum*, which may be one reason for the differential survival. In a second experiment, the behaviour of pairs of early-instar larvae of the 2 spp. was observed in different size combinations. Small *S. fonscolombii* larvae reduced locomotory activity in the presence of larger *O. cancellatum*. In contrast, small *O. cancellatum* did not do so in the presence of larger *S. fonscolombii*. This behavioural difference may also cause asymmetric interspecific predation.
- (14243) SYMNET. Newsletter of the Aka-tombo network, No. 9 (5 Dec. 2001). Published in Jap. & Engl. edn. — (Distributed by N. Ishizawa, 1644-15 Yamaguchi, Tokorozawa, Saitama, 359-1145, JA).
Higashi, K.: Kotee of dragonflies and quails (pp. 1-2); — *Nagayama, S.*: Memories on dragonflies (pp. 3-5); — *Akagi, M.*: Observation on a swarming aka-tombo (p. 5); — *Hachiya, K.*: Seasonal fluctuations of adult *Sympetrum frequens* and *S. infuscatum* at rice paddies in Hokkaido (pp. 6-8); — *Tsubuki, T., S. Ikeda & N. Otsuka*: *Sympetrum infuscatum* and *S. frequens* at the Yunomaru Heights in early August 2000 (p. 8); — *Tsubuki, T.*: Group migration of *Sympetrum frequens* at Toshima-ku, Tokyo in early summer (p. 9); — *Anonymous*: A new easy picture book of dragonflies, by T. Tanaka (p. 9); — *Uéda, T.*: One example of oviposition site of *Sympetrum frequens* (p. 10); — *Tsubuki, T.*: Shelters for bad weathers in *Sympetrum* species (pp. 11-12); — *Uéda, T.*: Two cases of evening migration in *Sympetrum frequens* (pp. 12-13); — *Ishizawa, N.*: Early reproductive behaviours in aka-tombo in Honshu (p. 13); — *Anonymous*: [Book review] Dragonflies of the world, by J. Silsby (p. 14).
- (14244) THEISCHINGER, G., 2001. A new species of *Eurysticta* Watson from Australia (Odonata: Isostictidae). *Linz. biol. Beitr.* 33(2): 1291-1294. — (2A Hammersley Rd, Grays Point, NSW 2232, AU).
E. reevesi sp. n. is described, illustrated and its affinities are discussed. Holotype ♂: Queensland, White Mts Natn. Park, Torrens Creek Gorge, alt. 580 m, 16/17-IV-2000; deposited in ANIC, Canberra.
- (14245) TOMAŽIČ, A., 2001. Kali pod etnološkim in biološkim drobnogledom. — [Karstic ponds under ethnological and biological microscope]. *Delo, Ljubljana* 43(288): 9. (Slovene). — (Author's address not stated).
A national daily's article on karstic ponds in Slovenia. A reference is made to their rich odon. fauna, and a phot. of a *Coenagrion scitulum* copula is included. It is emphasized, in Slovenia, this sp. is almost entirely restricted to karstic ponds.
- (14246) VAN DER SLUIS, T., B. PEDROLI & H. KUIPERS, 2001. Corridors for life: ecological network analysis for Regione Emilia-Romagna; agricultural plains of Provincia di Modena & Bologna. *Alterra Rapp.* 365: 1-80. (With Ital. s.). — (Available at € 23.- net from Alterra Green World Res., P.O. Box 47, NL-6700 AA Wageningen).
The results are presented of an analysis of the ecological network, designed for the agricultural plains of the Modena and Bologna provinces, Italy. Woodland, wetland and grassland ecosystems were selected, and the resp. representative spp. are dealt with. *Calopteryx splendens* is among those representative for the wetlands. The model LARCH was used to assess whether these ecosystems still function as an ecological network. The region has a serious fragmentation problem. The implementation of the suggested ecological network would significantly improve the situation.
- (14247) WIJCKER, A., 2001. *Libellenatlas Noord-Holland Duinreservaat, 1996-2000*. — [*Dragonfly atlas of the Noord Holland Dune Reserve*]. N.V. PWN Waterleidingbedrijf Noord Holland, Velsersbroek. iv+102 pp. ISBN none. (Dutch). — (Publishers: Rijksweg 501, NL-1991 AS Velsersbroek; — Author: Van Oldenbarneveldweg 40, NL-1901 KC Castricum).

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- During 1996-2000, 34 spp. were evidenced in the Reserve, Noord Holland prov., the Netherlands. The odon. communities of the surveyed wetlands are outlined, and the regional occurrence of each sp. is presented and commented upon in detail. Regional distribution maps are included.
- (14248) ZESSIN, W., 2001. Der Zoo von Novosibirsk – eine gute Adresse für die Zucht gefährdeter Wildtiere. *Ursus*, Schwerin 7(2): 97-103. – (Zoo Schwerin, Waldschulweg 1, D-19061 Schwerin). In the framework of the 15th Int. Symp. Odonatol. (Novosibirsk, 9-21 July 2001), the Author (Director of the Schwerin Zoo) paid a professional visit to the local Zoological Gardens. In this paper, a brief description of the Post-Symp. Tour to Altai, and a number of photos are included.
- (14249) ZESSIN, W., 2001. Eindrücke von der zwanzigsten Tagung deutschsprachiger Odonatologen (GdO) vom 16.-18.3.2001 in Görlitz. *Virgo* 5(1): 67-74. – (Lange Str. 9, D-19230 Jasnitz). A comprehensive report on the GdO Symposium, incl. the program and numerous photographs. – For the abstracts of papers, see OA 13748.
- (14250) ZESSIN, W., 2001. Lebensraum und Artenschutz von Libellen (Odonata) an und in Fließgewässern von Mecklenburg-Vorpommern. *Virgo* 5(1): 18-26. – (Lange Str. 9, D-19230 Jasnitz). 19 spp. are dealt with; their occurrence, habitat requirements and status in Mecklenburg-Vorpommern, E Germany are stated.
- (14251) ZWEIG, L.D. & C.F. RABENI, 2001. Biomonitoring for deposited sediment using benthic invertebrates: a test on 4 Missouri streams. *Jl N. Am. benthol. Soc.* 20(4): 643-657. – (First Author: Fish. Div., Missouri Dept Cons., 1110 South College Ave, Columbia, MO 65201, USA). The response of stream benthic invertebrates to superficially deposited fine sediment was investigated in the Missouri Ozark ecoregion. Tolerance values, representing taxa responses to deposited sediment (DSBI), were developed for 30 taxa, incl. *Argia* sp. (DSBI 1, intolerant). Deposited-sediment tolerance values were not correlated with biotic index tolerance values (BI; *Argia* 8.7), indicating a different response to deposited sediment than to organic enrichment.
- (14252) ARGIA. The news journal of the Dragonfly Society of the Americas. (ISSN 1061-8503), Vol. 14, No. 1 (20 March 2002), No. 2 (15 June 2002). – (c/o Dr & Mrs T.W. Donnelly, 2091 Partridge Lane, Binghamton, NY 13903, USA). [Scientific articles], [No. 1]: Sibley, F.C.: Connecticut records of *Sympetrum corruptum* and South American *Coenagrionidae* (pp. 3-4); – Abbott, J.C. & R.R. Larsen: Two new damselflies from Nevada (p. 4); – Johnson, J.: A neat discovery (p. 4; Gomphus lynnae); – Daigle, J.J.: A fistful of Bolivianos (p. 5; Bolivian records); – Sibley, F.C.: Miscellaneous notes on British Virgin Islands dragonflies (pp. 5-7); – Donnelly, N.: Odonata of St Thomas and St John, Virgin Islands (pp. 7-9); – Sibley, F.C.: *Micrathya debilis* from Jamaica (p. 9); – Behrstock, R.A.: New late flight dates for Texas Odonata including 20 late records for the United States (pp. 9-13); – Dunkle, S.: Hobby falcons and dragonflies (p. 13); – Donnelly, N.: Bat falcons and dragonflies (p. 13); – Mauffray, B.: Georgia update (pp. 13-14); – Beckemeyer, R. / Donnelly, N.: 4 book reviews (pp. 14-15). – [No. 2:] Craves, J.: Cuba trip report (pp. 6-7; records); – Donnelly, N.: Uganda revisited (pp. 7-10; records); – Krotzer, S.: *Gomphus septima* rediscovered in Alabama (p. 10); – Rehn, A. & D. Paulson: *Orthemis discolor* from Arizona (p. 11); – Johnson, J., E. Coombs & S. Valley: Recent highlights in Oregon (pp. 11-13); – Abbott, J.C.: A new dragonfly from Utah (p. 13; *Aeshna persephone*); – Donnelly, N.: Dot map project: patterns of diversity are emerging (pp. 13-16); – Beckemeyer, R.: Dragonfly "footprints" (p. 16); – Donnelly, N.: Some names for "dragonfly" (pp. 16-17; folk appellations in Burma and Uganda); – Donnelly, N. / Beckemeyer, R.: 3 book reviews (pp. 17-18). – The 2 issues include also various field trip reports (containing noteworthy records) and the traditional "Tramea" (providing information on websites).
- (14253) ATROPOS, No. 16 (Apr. 2002), No. 17 (Aug. 2002). ISSN none. – (c/o M. Tunmore, 36 Tinker Lane, Meltham, Holmfirth, W Yorks, HD9 4EX, UK). [Odon. articles], [No. 16]: Parr, A.: Southern Skimmer *Orthetrum brunneum* (Fonscolombe) (pp. 31-33, figs 29-30 excl.); – Wasscher, M.: Canal Damselfly *Cercion lindenii* (Selys), a species to look out for (pp. 62-63, figs 33-34 excl.); – Cham, S.: [book review] Dragonflies of the world, by J. Silsby (p. 74); – *Insectline*: Insects reported during the early part of 2002

- (pp. 74-75); — *Parr, A.*: Lesser Emperor *Anax parthenope* update (p. 78, figs 31-32 excl.); — *Murray, C.*: Dragonfly conservation from the BDS (pp. 78-79); — *Twissell, I.*: Gloucestershire dragonflies: information request (p. 80). — [No. 17]: *Insect Lines*: Migrant insect summary, mid-April to July 2002 (pp. 17-19); — *Murray, C.*: Dragonflies: ancient animals under threat (pp. 19-25, figs 28-33 excl.); — *Ketelaar, R.*: Odonata in the Netherlands, 2001 (pp. 58-59); — *Goddard, D.* Dragonfly conservation from the BDS (pp. 68-69).
- (14254) *BEDJANIČ, M. & A. ŠALAMUN*, 2002. Additional notes on the last larval instar of *Epophthalmia vittata cyanocephala* Hagen, 1867 from Sri Lanka (Odonata: Corduliidae). *Opusc. zool. flumin.* 204: 1-6. — (First Author: Fram 117/a, SI-2313 Fram). The original description of the larva (cf. M. Bedjanič, 2000, *Odonatologica* 29: 57-61) is supplemented on the basis of appreciable fresh material, collected in Oct. 2001 in northern and central Sri Lanka. The measurements, illustrations and additional descriptions of some morphological features of the exuviae are presented and a considerable variation in the peculiarly shaped labial palps is pointed out. The current knowledge of the larval forms in the genus is briefly outlined, and comments on ecology, distribution and adult phenology of the endemic *E. v. cyanocephala* are supplied.
- (14255) *BEKETOV, M.A.*, 2002. Toksichnost' ammoniya dlya gidrobiotipov: obzor. — [Ammonia toxicity to aquatic organisms: a review]. In: A.Yu. Haritonov & L.N. Sivohina, [Eds], *Biologicheskaya nauka i obrazovanie v pedagogicheskikh vuzah*, Vol. 2, pp. 93-100, Novosibirsk St. Pedag. Univ. & Inst. Anim. Syst. Ecol., Russ. Acad. Sci., Novosibirsk. ISBN 5-85921-293-3. (Russ.). — (P.O. Box 156, RUS-630048 Novosibirsk).
A brief critical review, with emphasis on invertebrates. LC50 values are presented for 29 spp., incl. *Erythromma najas*, *Lestes sponsa* and *Sympetrum flaveolum*. Aside of *Philartetus quaeis* (Trichopt.), odon. larvae are the most tolerant spp. studied.
- (14256) *BOWLES, B.*, 2002. Results of the 2001 Carden odonate count. *Ontario Insects* 7(2): 39. — (374 Grenville, Orilla, ON, L3V 7P7, CA).
1581 individuals of 26 spp. were sighted on 14-VII-2001. *Gomphus fraternus* was the highlight, representing the first record for Victoria Co., Ontario, Canada (cf. also *OA* 13842).
- (14257) *BOWLES, B.*, 2002. Results of the 2001 Pelee Island butterfly and odonate counts. *Ontario Insects* 7(2): 34-35. — (374 Grenville, Orilla, ON, L3V 7P7, CA).
82 individuals, referable to 12 spp., were sighted on 5-VIII-2001, but all spp. were encountered already at the earlier counts as well (cf. *OA* 13658); Ontario, Canada.
- (14258) *BUCZYNSKI, P., J. THEUERKAUF & S. ROUYS*, 2002. Nowe stanowiska *Cordulegaster bidentata* Selys, 1843 (Odonata: Cordulegastridae) w Bieszczadach. — New records of *Cordulegaster bidentata* Selys, 1843 (Odonata: Cordulegastridae) from the Bieszczady Mountains. *Wiad. ent.* 20(3/4): 183-184. (Pol., with Engl. title). — (First Author: Dept Zool., Inst. Biol., Maria Curie-Skłodowska Univ., Akademicka 19, PO-20-033 Lublin).
Without locality data, the sp. was mentioned from the Bieszczady Mts, Poland by L. Sawkiewicz & M. Żak (1966, *Roczn. Muz. gornosl. Bytom* [Przyr.] 3: 73-132. Here, the first documented records are presented, viz. 2 ♂, Smerek, 25-VII-2000; and 2 ♂, Krywe, 22-VIII-2000.
- (14259) *CANNINGS, R.*, 2002. The dragonflies of northern British Columbia: field surveys, collections development and public education. *Boreus* 21(2): 16 [abstract only]. — (Royal B.C. Mus., P.O. Box 9815 Stn Prov. Govt., Victoria, BC, V8W 9W2, CA).
[Verbatim:] A multi-yr project headed by the Royal BC Museum and the BC Conservation Data Centre is surveying the Odon. of British Columbia N of 52° N latitude. Dragonflies are important indicators of ecosystem health and comprehensive surveys have never been performed in most northern BC areas. Goals include the study of the distribution, status, habitat requirements and management needs of the spp. involved, with emphasis on rare taxa. The promotion of public knowledge and the involvement of volunteers in monitoring these insects is a priority of the project.
- (14260) *CANNINGS, R.*, 2002. William E. Ricker (1908-2001). *Boreus* 21(2): 11-13. — (Royal B.C. Mus., P.O. Box 9815 Stn Prov. Govt., Victoria, BC, V8W 9W2, CA).
A brief biography, appreciation of his aquatic biology work, and a complete entomol. bibliography (1935-1997).
- (14261) *DOMMANGET, J.-L.*, 2002. Autorisations de

- capture: où en sommes nous? *Insectes* 124: 33-34. — (7 rue Lamartine, F-78390 Bois-d'Arcy).
- The 1999 (French) Specimen Collection Act is described, and the sense of its elaborate and time-consuming provisions is questioned by one of the leading French odonatologists.
- (14262) DOMMANGET, J.-L., 2002. *Protocole de l'Inventaire cartographique des odonates de France (Programme INVOD)*. [3rd edn]. Mus. Natn. Hist. Nat., Paris & Soc. Fr. Odonatol., Bois-d'Arcy. 64 pp. ISBN 2-9507291-4-2. Price: € 5.- net. — (Orders to: Soc. Fr. Odonatol., 7 rue Lamartine, F-78390 Bois-d'Arcy). A detailed description of the technical aspects of the project. The main chapter titles are: Objectifs et généralités (pp. 7-14), Validation des données (pp. 15-16), Améliorations apportées à l'inventaire (p. 17), Méthodologie de terrain (pp. 19-24), Transfert des données (pp. 25-32), Localisation des informations (pp. 33-39), Autres sources d'informations (p. 40), Renseignements pratiques (p. 41), and among the Appendices: Liste de référence des odonates de France métropolitaine (pp. 45-48), and Liste des habitats odonatologiques (pp. 49-50).
- (14263) ENDERSBY, I., 2002. Victorian dragonfly common names. *Victorian Ent.* 32(1): 14-15. — (56 Looker Rd, Montmorency, Vic. 3094, AU). A list of the recommended vernacular names of the spp. known to occur in Victoria, Australia.
- (14264) GONG, P., Z.-R. SHEN & Z.-H. LI, 2002. Wolbachia endosymbionts and their manipulation of reproduction of arthropod hosts. *Acta ent. sin.* 45(2): 241-252. (Chin., with Engl. s.). — (Coll. Plant Prot., China Agric. Univ., Beijing-100094, P.R. China). Wolbachia is a common and widespread group of symbiotic bacteria, occurring in arthropod reproductive tissues. Its biology is reviewed, and effects of various spp. are described. Also provided is an exhaustive bibliography. No reference to the odon. is made in the paper; it is listed here solely because of a pers. comm. from Prof. Dr A. Cordero Rivera (19 March 2001), suggesting the possibility Wolbachia could be responsible for parthenogenesis in the Azoran *Ischnura hastata*.
- (14265) GOUDSMITS, K., 2002. *De libellenfauna van het Pluismeer*. — [*Dragonfly fauna of the Pluismeer*]. Goudsmits, Zeist. 20 pp. (Dutch). — (Author: 1^e Dorpstraat 7-A, NL 3701 HA Zeist).
- A careful report on the odon. fauna (35 spp.) of the Pluismeer lake and the adjacent De Stulp area (Lage Vuursche, Utrecht prov., the Netherlands), based on the 1995-2000 field work and on sporadic earlier records. During the covered period, some hydrological and water quality changes have taken place; the effect of these is apparent in the occurrence of some spp.
- (14266) *INTERNATIONAL JOURNAL OF ODONATOLOGY*. (ISSN 1388-7890), Vol. 5, No. 1 (2 Apr. 2002). With the present issue, the former *Pantala* has changed the name as above, but the ISSN number was retained. — *Beukema, J.J.*: Changing distribution patterns along a stream in adults of *Calopteryx haemorrhoidalis* (Odonata: Calopterygidae): a case of larval-drift compensation? (pp. 1-14); — *Clausnitzer, V.*: Reproductive behaviour and ecology of the dendrolimnetic *Hadrothemis scabrifrons* (Odonata: Libellulidae) (pp. 15-28); — *Clausnitzer, V. & M. Lindeboom*: Natural history and description of the dendrolimnetic larva of *Coryphagrion grandis* (Odonata) (pp. 29-44); — *Corbet, P.S.*: Stadia and growth ratios of Odonata: a review (pp. 45-73); — *Martens, A.*: Group oviposition in three platycnemidid species (Odonata: Platycnemididae) (pp. 75-80); — *Melnichuk, M.C. & D.S. Srivastava*: Abundance and vertical distribution of bromeliad-dwelling zygopteran larva, *Mecistogaster modesta*, in a Costa Rican rainforest (Odonata: Pseudostigmatidae) (pp. 81-97); — *Tennessen, K.J.*: *Argia rosse* sp. nov. from central Bolivia (Odonata: Coenagrionidae) (pp. 99-104).
- (14267) JONES, C.D., 2002. Sixth annual Algonquin odonate count. *Ontario Insects* 7(2): 40-41. — (Box 182, Lakefield, ON, K0L 2H0, CA). 3221 individuals, referable to 41 spp. were sighted on 23-VI-2001. So far, 75 out of the 99 Algonquin Provincial Park spp. were sighted during the 6 counts; — Ontario, Canada. (Cf. also OA 13630).
- (14268) [KIAUTA, B.] Anonymous, 2002. Het heeft Hare Majesteit behaagd. — [Her Majesty has been graciously pleased]. *Biltse & Bilthovense Courant* 89 (2 May): 1. (Dutch). — (P.O. Box 256, NL-3720 AG Bilthoven). [Article in a local newspaper]. On the 10th of April 2002, the Queen of the Netherlands bestowed on Dr B. Kiauta the Knighthood in the order Orange-Nassau, in recognition of "... the crucial role he has played worldwide in the gathering and dissemination of [scientific] knowledge on dragonflies, particularly so

on the editorial level ...". — (The information has appeared also in regional and national dailies).

- (14269) *LIBELLENNACHRICHTEN*. Mitteilungsblatt der Gesellschaft deutschsprachiger Odonatologen (GdO). (ISSN 1437-5621), No. 7 (20 Feb. 2002). (c/o Ms I. Schrimpf, Heimbühlstr. 32, D-72768 Reutlingen). 16 pp., incl. various notifications, bibliographic news, and the articles: *Lempert, J.*: Tombo, Libellen in Japan, 1 (pp. 7-8); — *Kunz, B.*: Libellen in Kinderbüchern (pp. 8-9); and — *Jödicke, R.*: Libellen sammeln auf Reisen: Tips für eine Minimalausrüstung und geeignete Methoden (pp. 9-11).

- (14270) *LOPAU, W. & J. ADANA*, 2002. Die Libellen-fauna von Cypern. *Naturk. Reiseber.* 19: 1-72. — (First Author: Kuhstedtermoor 26, D-27442 Gnarnenburg). This is a thorough monograph of all what is known on the odon. fauna (33 spp.) of Cyprus. *Cercion lindenii*, *Aeshna mixta*, *Anax immaculifrons*, *Orthetrum chrysostigma* and *Diplacodes lefebvrei* are reported from the island for the first time. The work is based on Authors' own systematic field work (1994), but, in addition to the literature records, it includes also a wealth of previously unpublished material of other collectors, notably the Cyprus inventories in BMNH, RMNH and ZMUA, altogether 955 new records. A map of the known localities is provided for each sp. — Considering its size, the abundance of aquatic habitats and the proximity of the continent, the fauna of the island is remarkably poor; the genera *Platycnemis*, *Pyrrhosoma*, *Coenagrion*, *Erythromma*, *Enallagma*, *Ceragrion*, *Brachytron*, *Gomphus*, *Cordulegaster*, *Somatochlora* and *Libellula* are missing.

- (14271) *MARTINIA*. Revue scientifique de la Société française d'odonatologie. (ISSN 0297-0902), Vol. 18, No. 1 (dated March 2002, received July 2002), Suppl. 1 (June 2002). (Mostly with Engl. s's). — (c/o J.-L. Dommanget, 7 rue Lamartine, F-78390 Bois-d'Arcy). [No. 1]: *Guerbaa, K.*: Les espèces d'odonates 'remarquables' du Limousin (pp. 3-12); — *Meurgey, F.*: Les collections d'odonates du Muséum d'Histoire Naturelle de Nantes. 2. Collection G. Brouquet: inventaire et révision (pp. 13-24); — *Mashaal, M.*: *Somatochlora metallica* [= meridionalis] (Vander Linden, 1825) [= Nielsen, 1935], espèce nouvelle pour la Corse (Odonata, Corduliidae) (pp. 25-27); — *Meurgey, F.*: Un cas de colonisation par les odonates d'un milieu modifié par les tempêtes de décembre 1999 en Ile-de-France (pp. 27-28); — *Luglia, M. & T. Luglia*:

Comptage de larves d'*Aeshna cyanea* (Müller, 1764) (p. 28); — *Grand, D.*: Voyage en Guadeloupe (pp. 29-36); — [Suppl. 1]: *Dommanget, T. & J.-L. Dommanget*: Inventaire cartographique des odonates de France (Programme INVOD): bilan 1982-2000 (pp. 1-68).

- (14272) *NIEUWSBRIEF VAN DE NEDERLANDSE VERENIGING VOOR LIBELLENSTUDIE*. (ISSN 1387-4470), Vol. 5, No. 4 (Dec. 2001), Vol. 6, No. 1 (Febr. 2002). (Dutch). — (c/o M. Wasscher, Minstraat 15 bis, NL-3582 CA Utrecht).

[Scientific notes:] [5/4:] *Dees, A.*: An attempt by ♂ *Sympetma paedisca* at copulation with a beetle (p. 5; with a phot.); — *Van der Heijden, A.*: On the vernacular expression, "Glazenmaker" (p. 6); — *De Boer, E.P.*: Dragonflies of the Alde Feanen (pp. 6-7); — *Wasscher, M.*: Preliminary dragonfly list of the city of Utrecht (pp. 7-8); — *Kalkman, V.*: *Somatochlora borisi* Marinov, 2001: a newly described European species (pp. 9-10); — *Van Tol, J.*: Impressions from the 15th International Symposium of Odonatology, Novosibirsk (pp. 10-11); — *Kalkman, V.*: Report of the 2nd WDA Symposium, Gällivare, Sweden (pp. 11-12). — [6/1:] *Editorial*: In memoriam Editor Eddy de Geest (p. 1); — *Manger, R.*: *Coenagrion pulchellum* vs *C. puella* in the Zwanenwater (pp. 8-9; with a supplementary note by *W. Reinoud* on p. 9); — *Wijnbeek, A.*: The pond at Weltevreden, De Bilt (pp. 10-11; with a checklist).

- (14273) *ODONATOLOGICAL ABSTRACT SERVICE*. (ISSN 1438-0269), No. 10 (July 2002). — (c/o Dr M. Lindeboom, Landhausstr. 10, D-72074 Tübingen & M. Schorr, Schulstr. 7 B, D-54314 Zerf).

The error in numbering from the previous issue (*OA* 14151) is corrected. On 58 pp., Abstracts Nos 2215-2658 of the works published in 1997-2002 are presented. A great deal of these concerns papers & notes from odonatol. periodicals, of which only the titles are listed in *OA*.

- (14274) *The OHIO DRAGON-FLIER*. Newsletter of the Ohio Odonata Society, Vol. 9, No. 1 (Jan. 1999), No. 2 (Apr. 1999), No. 3 (Sept. 1999); Vol. 10, No. 1 (Jan. 2000), No. 2 (May 2000), No. 3 (July 2000), No. 4 (Sept. 2000); Vol. 11, No. 1 (Jan. 2001), No. 2 (May 2001), No. 3 (Sept. 2001); Vol. 12, No. 1 (Jan. 2002), No. 2 (May 2002). — (c/o B. Glotzhober, Ohio Hist. Soc., 1982 Velma Ave, Columbus, OH 43211-2497, USA). [Some highlights:] [9/1:] *Anonymous*: Collecting dragonflies: do vs don't (pp. 2-3); — [9/2:] *Anonymous*:

- Acetone warnings (p. 3); – Dragon against dragon (p. 5); – [9/3:] *Chapman, E.G.*: Rocket-tailed Emerald (*Dorocordulia libera*) found in Ohio for first time in 75 years (pp. 1-2); – [10/1:] *Membership list* for 1999 (pp. 6-7); – [10/2:] *Chordes, S.W., R.L. Stewart & J. Rieger*: Odonate fauna from Tomlinson Run State Park (p. 4); – *Eaton, E.R.*: Urban odonates: Cincinnati (pp. 4-5); – *Membership list* for 2000 (pp. S1-S2); – [10/3:] Memorial Issue, dedicated to B.V. Counts, Jr; – [10/4:] [*Glotzhofer, B.*] Brush-tipped Emerald [*Somatochlora walshii*] new to Ohio in 2001 (pp. 3-4); – *Rosche, L.*: Some notes on Harlequin Darner [*Gomphaeschna furcillata*] in Northeast Ohio (pp. 4-5); – [11/1:] includes an announcement and text and figs examples of the forthcoming Ohio Odonata book; – [11/2:] *Anonymous*: Revisions to Endangered Species (p. 1); – *Glotzhofer, B.*: Eggs on cars (pp. 2-3); – [11/3:] *Anonymous*: New county records (pp. 3-5); – *Observation and behaviour notes* (pp. 6-7); – *Migrations* (pp. 7-8); – [12/1] and [12/2:] contain mainly notifications.
- (14275) **PROGRAMM & ABSTRACTS 21. Jahrestagung der Gesellschaft deutschsprachiger Odonatologen (GdO), 22.3-24.3.2002, Worms/Rhein**. Trippstadt. 40 pp. (no pagination). Edited by Dr J. Ott (Friedhofstrasse 28, D-67705 Trippstadt). [Abstracts of presented papers:] *Müller, J.M. & H. Bellmann*: *Coenagrion hylas* und das Tiroler Lechtal; – *Buczyński, P. & G. Tonczyk*: Gefährdete Libellen in Polen, Stand 2001; – *Buczyński, P.*: *Orthetrum albistylum* in Polen: neue Funde, neue Fragen; – *Clausnitzer, C. & H.-J. Clausnitzer*: Afrikanische Waldlibellen; – *Conze, K.-J. & N. Menke*: Hinter dem Horizont der FFH-Libellen: Überlegungen zu einer bundesweiten Datensammlung; – *Corbet, P.S.*: Recent developments in odonatology; – *Dévai, G., M. Miskolczi & Z. Müller*: Olyvös, ein Tieflandbach mit vielfältiger und wertvoller Libellenfauna; – *Endlein, T., E. Strohm & H.J. Poethke*: Reproduction in a heterogeneous landscape: the consequences of habitat quality for reproduction and larval development in a damselfly; – *Lieckweg, T., O.-D. Finch & R. Niedringhaus*: Langjährige Änderungen der Libellenfauna einer ökologisch restaurierten Agrarlandschaft; – *Blüttger, H. & O.-D. Finch*: Die Libellenzönosen an Krebscherengraben der östlichen Wesermarsch (Niedersachsen) unter besonderer Berücksichtigung der FFH-Art *Aeshna viridis* Eversmann, 1936; – *Geppert, G., J. Müller & W.E.R. Xylander*: Verhalten von *Calopteryx splendens* Harris, 1762 (Zygoptera, Odonata) am nächtlichen Ruheplatz; – *Groenendijk, D.*: Habitat characteristics and conservation of the Beautiful Damoiselle (*Calopteryx virgo*) in the Netherlands; – *Günther, A.*: Reproduktionsverhalten von *Neurobasis kaupi* Brauer, 1867; – *Hunger, H.*: GIS-gestützte Untersuchungen zu den FFH-Libellen Baden-Württembergs; – *Jacquemin, G. & J.-P. Boudot*: The dragonflies (Odonata) of Morocco; – *Jödicke, R. & B. Kunz*: Gefangen zwischen Meer und Küste: Endemiten im Maghreb; – *Joop, G.*: Gestresste Libellen: Auswirkungen natürlicher Feinde; – *Kalkman, V.J., W. Lopau & G.J. van Pelt*: Mapping Turkish dragonflies (Odonata); – *Kern, D.*: Libellen in spätmittelalterlichen Handschriften; – *Ketelaar, R.*: Habitat choice of the Norfolk damselfly (*Coenagrion armatum*) in Sweden, Norway and the Netherlands; – *Knaus, P. & H. Wildermuth*: Ortstreue und Mobilität in zwei alpinen Metapopulationen von *Somatochlora alpestris*; – *Laister, G.*: Wieder vital? Ein Libellenbestand sieben Jahre nach der Renaturierung; – *Leipelt, K.G.*: Im Osten nichts Neues? Verteilungsmuster von Cordulegaster-Arten auf griechischen Inseln; – *Lingenfelder, U.*: Faunistisch-ökologische Untersuchungen zur Libellenfauna im Einzugsgebiet der Wieslauter (Pfalz); – *Marinov, M.*: Habitats characterisation scheme for Bulgarian Odonata species; – *Suhling, F. & A. Martens*: Trockenflüsse und Folienteiche: Libellenforschung in Namibia; – *Mauersberger, R., S. Bauhus & P. Salm*: Zum Vorkommen der Grünen Mosaikjungfer (*Aeshna viridis* Eversmann) im Nordosten Brandenburgs (Odonata: Aeshnidae); – *Nikolajewski, D.J.*: Trade-offs between morphological and behavioural defences in *Leucorrhinia*-species; – *Ott, J.*: Brauchen Libellenlarven wirklich Wasser?; – *Padeffke, T.*: "Wer zuerst kommt ...": Erstbesiedlungseffekte bei Libellenarten in der Namib-Wüste; – *Raab, R.*: Libellen als Bioindikatoren zur Überprüfung der Wirksamkeit von Revitalisierungsmassnahmen an Flüssen im Stadtgebiet von Wien; – *Salvarani, M., M. Pavesi, M.E. Ferrari & V. Parisi*: Odonata community on "Derivatore del Canale Naviglio Taro"; – *Schiel, F.-J. & H. Hunger*: Emergenzuntersuchungen an zwei Populationen von *Ophiogomphus cecilia* in der baden-württembergischen Oberrheinebene; – *Schmidt, E.G.*: Auswirkungen der verregneten Sommer 2000 & 2001 auf die Odonatenfauna am Beispiel eines Tümpel-Biotops (NSG Plümerfeld bei Lüdinghausen Westmünsterland); – Emergenzprofile von *Gomphus vulgatissimus* am Dortmund-Ems-Kanal im Westmünsterland; – Winteraufenthalt von *Sympetma fusca* am Brutgewässer im Westmünsterland; –

- Schorr, M.: Überlegungen zu einer Ergänzung des Anhangs II der FFH-Richtlinie aus odonatologischer Sicht; — Stuckas, H.: Gomphus vulgatissimus und Ophiogomphus cecilia an der Schwarzen Elster; — Szállassy, N., E. Bárdosi, Z.D. Szabó, B. Nagy & G. Dévai: Survival and mating success in males of Libellula fulva Müller, 1764; — Thomas, B.: Libellen im Kreis Viersen (NRW): früher Beginn von Flugzeit und Reproduktion in den 90er Jahren; — Wildermuth, H.: Raumbezogenes Fortpflanzungsverhalten der Arktischen Smaragdlibelle (Somatochlora arctica); — Martens, A. & H. Wildermuth: Blutsauger auf der Flügel: Gniten als Parasiten europäischer Libellen; — Willigalla, C.: Die Libellenfauna der Regentrickhaltebecken der Stadt Münster; — Zessin, W.: Eine neue interessante Libellengattung (Trigonophlebia, Anisozoptera) aus dem Lias Mitteleuropas.
- (14276) REINBOUD, W., T. DE GROOT & M. WASSCHER, 2002. *Odon-tabel voor het op naam brengen van libellen zonder te vangen*. Jeugdbondsuitgeverij, Utrecht. 80 pp. Softcover (14.8x21.0 cm). ISBN none. Price: € 4.- net. — (Dutch). — (Publishers: Donkerstraat 17, NL-3511 KB Utrecht).
The 4th, slightly revised edn of the work described in OA 12591.
- (14277) ROSCHE, L., 2002. *Dragonflies and damselflies of Northeast Ohio*. Cleveland Mus. Nat. Hist., Cleveland/OH. vii+94 pp. Spring binding (14.0x21.0 cm). ISBN 0-9717460-0-1. Price: US \$ 18.95 net. — (Publishers: Cleveland Mus. Nat. Hist., 1 Wade Oval, University Circle, Cleveland, OH 44106-1767, USA).
A handy field guide for identification of the regional spp., with descriptions and water colour paintings of all sp.
- (14278) STAGLIANO, D.M. & M.R. WHILES, 2002. Macroinvertebrate production and trophic structure in a tallgrass prairie headwater stream. *Jl N. Am. benthol. Soc.* 21(1): 97-113. — (First Author: Michigan Nat. Features Inventory, P.O. Box 30444, Lansing, MI 48909-7944, USA).
In the Kings Creek, S of Manhattan, Kansas, USA, the odon. contribute 1% in the total macroinvertebrate production. The abundance of Argia sp. was 56 individuals/m², its biomass (ash-free dry mass/m²) was 30 mg. For Calopteryx maculata these values were 11 and 6 resp.
- (14279) SUGIMURA, M., 2002. *Live together with tombo: 2002 calendar*. Tombo to shizen wo kangaeru kai, Nakamura. — (Author: 9-7, Uyama-satsuki-cho, Nakamura, Kochi, 787-0012, JA).
A monthly calendar, with a dragonfly phot. for each month. Taxonomic nomenclature, with brief captions in Jap. — (Abstractor's Note: Since 1987, the "Dragonfly Kingdom" in Nakamura, Japan is conducting annually a "Dragonfly Photo Contest". The 16th is to take place in 2002).
- (14280) THEISCHINGER, G., 2002. *Preliminary keys for the identification of larvae of the Australian Petaluridae, Archipetaliidae, Austropetaliidae, Telephlebiidae and Aeshnidae (Odonata)*. Cooperative Res. Cent. Freshw. Ecol., Thurgoona/NSW [Identification & Ecol. Guide No. 42]. iv+102 pp., 2 col. pls excl. ISBN 1-876144-44-0. — (Orders to: Murray Darling Freshw. Res. Cent., P.O. Box 921, Albury, NSW 2640, AU).
The 5 families, in their present concept, include in Australia 56 recognised spp. in 18 gen.; the larvae of most of these are known. They are here described, illustrated and keyed. Generally, only the most reliable characters are used in keys and diagnoses, but the keys may be of limited use for identifying specimens other than final instar larvae and exuviae.
- (14281) WENDLER, A. & J.-H. NÜSS, 2002. *Libellen van Noordwest-Europa: determinatie, verspreiding, biotoopsvoorkeur en bedreiging van de libellensoorten van Noordwest-Europa*. Jeugdbondsuitgeverij, Utrecht. 136 pp. Softcover (16.0x21.0 cm). ISBN 90-5107-031-4. Price: € 8.- net. (Dutch). — (Publishers: Donkerstraat 17, NL-3511 KB Utrecht).
This is the Dutch edn of the work described in OA 8018 (for Fr. edn see OA 10034), adapted for the Netherlands by A. Stroo, M. Wasscher and W. Schuurman. The modifications mainly include the biotope and adult phenology data, but a few minor text improvements are also introduced. The regional species coverage is not entirely complete; Somatochlora meridionalis is missing. Distribution maps are almost perfect, but the post-1990 state borders are not indicated. — For a book review, by R. Ketelaars, see *Vlinders* 17(2): 30; 2002.
- (14282) WICHARD, W., W. ARENS & G. EISENBEIS, 2002. *Biological atlas of aquatic insects*. Apollo Books, Stenstrup. 339 pp., 148 pls (912 SEM phot.), 156 textfigs incl. Hardcover (17.5x24.3 cm). ISBN 87-88757-60-9. Price: € 76.- net. — (Publishers:

Kirkeby Sand 19, DK-5771 Stenstrup).

This is an overview of the adaptations of aquatic insects to the life in an aquatic environment. The odon. are dealt with on pp. 44-67. The following subjects are considered: surface structures in *Epiophlebia superstes* larva, eggs, prolarvae, masks and rectal chloride epithelia in *Zygopt.* and *Anisopt.*, abdominal tracheal gills in *Epallage fatime*, jet propulsion in *Anisopt.*, etc. — For the original German edn see OA 10476.

- (14283) *WILLIAMSONIA*. Newsletter of the Michigan Odonata Survey. ISSN none. Vol. 6, No. 1 (Feb. 2002), No. 2 (May 2002). — (c.o Dr M.F. O'Brien, Insect Div., Mus. Zool., Univ. Michigan, 1109 Gaddes Ave, Ann Arbor, MI 48109-1079, USA).

[No. 1:] *O'Brien, M.*: Editorial (p. 1); — *Freeman, C.*: Checklist of Odonata of Benzie county (pp. 2-3); — *O'Brien, M.*: Proposal for a system of regional coordinators in Michigan (p. 6); — Checklist of Odonata found in Michigan (pp. 7-8); — *Ross, S.B.*: Some dragonflying in Suriname, South America (pp. 9-10). — [No. 2:] *Dunlap, S.*: Early spring sighting of *Sympetrum corruptum* in the western Upper Peninsula (p. 3); — *O'Brien, M.*: Spring bursts forth, darners zoom in (pp. 3-4); — *Swanson, G.*: Update on *Williamsonia lintneri* in Kent Co. (p. 4); — *Freeman, C.*: Best backyard list? (p. 5; checklist from a backyard in Benzie Co., OH); — *O'Brien, M.*: 3 book reviews (pp. 5-7); — MOS county records (pp. 7-11); — *Anonymous*: Great Lakes Odonata Group (p. 12; subscription address: gl_odonata.subscribey@ahoogroups.com).

- (14284) *YOURTH, C.P., M.R. FORBES & B.P. SMITH*, 2002. Immune expression in a damselfly is related to time of season, not to fluctuating asymmetry or host size. *Ecol. Ent.* 27(1): 123-128. — (Second Author: Dept Biol., Carleton Univ., 1125 Colonel By Dr., Ottawa, ON, K1S 5B6, CA).

Variation in immune responsiveness within and among spp. is the subject of the emerging field of ecological immunology. The work reported here showed that individuals of *Lestes forcipatus* differ in their likelihood of mounting immune responses, and in the magnitude of those responses, against a generalist ectoparasite, the water mite *Arrenurus planus*. Immune responses took the form of melanotic encapsulation of mite feeding tubes, occurred in the few days after host emergence, and resulted in mites dying without engorging. Such immune responses were more probable and stronger for hosts sampled later rather than earlier in the season. Such responses may act as selection affecting seasonal patterns of egg hatching and larval abundance of mites. Contrary to expectation, metrics of host size (wing length) and wing cell fluctuating asymmetry were not related to the likelihood of immune responses. The importance of season on immune expression of insects has not been explored in detail. They suggest possible trade-offs in allocation of melanin (or its precursors) to maturation versus immunity, and indicate the need for studies on the synergistic effects of weather and parasitism on host spp. that use melanotic encapsulation to combat parasites and pathogens.