

ODONATOLOGICAL ABSTRACTS

1975

- (9621) DOLMEN, D., B. SAETHER & K. AAGAARD, 1975. Ferskvannsbillogiske undersøkelser av tjønner og evjer langs elvene i Gauldalen og Orkdalen, Sør-Trøndelag. — [Freshwater biological investigations of tarns and oxbow lakes along the rivers in the Gaulalen and Orkdalen valies, South-Trøndelag]. *Rapp. kgl. norsk. videnskap selsk. Mus. Trondheim (Zool.)* 1975(5): 1-47. (Norwegian). — (First Author: Mus., Univ. Trondheim, N-7004 Trondheim). Contains a checklist of 13 odon. spp., from 24 sampling sites; southern Trøndelag, Norway.

1977

- (9622) BAADSVIK, K. & J. SUUL, 1977. Biologiske registreringer og verneinteresser i Litlvatnet, Agdenes i Sør-Trøndelag. — [Biological inventory and conservation value of Lake Litlvatnet, Agdenes, South-Trøndelag]. *Rapp. kgl. norsk. videnskap selsk. Mus. Trondheim (Bot.)* 1977(4): 1-55. (Norwegian). — (c/o Dr D. Dolmen, Mus., Univ. Trondheim, N-7004 Trondheim).
The odon. fauna (3 spp., pp. 28-32) was worked out by D. Dolmen & K. Aagaard.

1983

- (9623) WYSS, M., 1983. [Aus dem Reichtum der Natur]. Vollendete Kunstflieger. *Vögel d. Heimat, Einsiedeln* 53(10/11): 240-241. — (Grauholzstr. 66, CH-3063 Ittigen).
A general note on dragonflies.

1984

- (9624) DIERICKX, P.J., 1984. Glutathione S-transferase in aquatic macro-invertebrates and its interaction with different organic micropollutants. *Sci. total Environment* 40: 93-102. — (Inst. Hygiene & Epidemiol., J. Wytmanstraat 14, B-1050 Brussels).
In higher organisms, glutathione S-transferase (GST) plays a key role in the detoxification of a large number of xenobiotics. The presence of GST in 20 spp. of Mollusca, Annelida, Crustacea and insects (incl. larval *Platycnemis pennipes*, *Ischnura elegans* and *Aeshna cyanea*) is reviewed and its possible significance as a detoxification mechanism of organic micropollutants in the aquatic environment is investigated. It is concluded that macroinvertebrate GST can play a key role in the detoxification in aquatic environment.

1985

- (9625) VAN BUGGENUM, H.J.M. & J.T. HERMANS, 1985. *Sympetrum pedemontanum* Allioni, 1766, weer in Limburg gevonden (Odonata: Libellulidae), met een overzicht van alle recente vindplaatsen uit Nederland en de grensstreken. — [*Sympetrum pedemontanum*: Allioni, 1766 evidenced again in Limburg (Odonata: Libellulidae), with a review of all recent records in the Netherlands and in the border areas]. *Natuurh. Maandbl.* 74(2): 26-29. (Dutch, with Engl.s.). — (Second Author: Herestraat 21, NL-6067 ER Linne).
Circumstantial evidence of the 1982 and 1984

Netherlands records is described and briefly discussed, and 13 1982-1983 records in the neighbouring areas in Belgium and Germany are reviewed. — For the Netherlands cf. also *OA* 4101, 4120, 4464.

1988

- (9626) CHINERY, M., 1988. *Insekter*. Gyldendal Norsk Forlag, Oslo. 318 pp. (Norwegian). This is the Norwegian ed. of the volume listed in *OA* 6313. Dr D. Dolmen is responsible for the adaptation of the odon. text (pp. 22-35) to the Norwegian conditions. — For a French ed. cf. *OA* 6701.
- (9627) PRYSWITT, K.-P., 1988. Von Teufelsnadeln und Augenstechern. *Nienburg. Heimatkalender* 3: 78-79. — (Hauptstr. 132, D-31637 Rode-wald).
A commented list of 41 spp., recorded in the Swarmstedt-Steimbke area, Nienburg distr., Germany.

1989

- (9628) NARAOKA, H., 1989. Diurnal rhythm of the damselfly *Ischnura asiatica* Brauer (Coenagrionidae, Odonata). 1. *Gekkan-Mushi* 225: 29-31. (Jap., with Engl. title). — (Fukunoda, Itayanagi-machi, Kitatsugaru-gun, Aomori, 038-36, JA). [Abstract not available].

1990

- (9629) EVERS, H., 1990. *Beziehungen zwischen Libellen und Biotopparametern mit einer Analyse der Habitate ausgewählter Libellenarten. Eine Untersuchung im landwirtschaftlich geprägten Freisinger Moos*. DiplArb. FH Weihenstephan. iv+117 pp., tabs excl. — (Author's address unknown).
Based on the study of 64 water bodies in the Freisinger Moos, Upper Bavaria, Germany, the relationships between odon. fauna and habitat features were examined. A chapter is concerned with the analysis of odon. associations in running and stagnant waters, and autecology of *Calopteryx splendens*, *Pyrrhosoma nymphula*, *Ischnura pumilio*, *Anax imperator*, *Libellula depressa* and *Sympetrum striolatum* is evidenced

in great detail. — This is an impressive, balanced and excellently documented work.

- (9630) YASUNO, T., 1990. On a fossil dragonfly *Ictinogomphus* from the Miocene Ito-o Formation, Fukui prefecture, central Japan. *Bull. Jpn Sea Res. Inst., Kanazawa* 22: 49-54.
An *Ictinogomphus* sp. specimen is described from the Lower Miocene. — [Not available for abstracting].

1991

- (9631) (Anonymous), 1991. Dammer på Romerike. En registrering og inventering av dammer i kulturlandskapet, med hovedvekt på amfibier. — [Ponds of the Romerike area. A registration and inventarisation of ponds in the cultural landscape, with emphasis on amphibians]. *Rapp. Miljøvernafd. Fylkesmannen Oslo & Akershus* 1991(2): 1-46. (Norwegian). — (c/o Dr D. Dolmen, Mus., Univ. Trondheim, N-7004 Trondheim).
Over 100 ponds were investigated; 16 identified odon. spp. are listed from some of them; Norway.
- (9632) BURMEISTER, E.-G., 1991. Bestandsaufnahme aquatischer Makroinvertebraten der Amper und ihrer Nebengewässer zwischen Schöngeising und Dachau. *Lauterbornia* 9: 1-19. (With Engl.s.). — (Zool. Staatssammlung, Münchhausenstr. 21, D-81247 München).
Lists 35 odon. spp. from this area in Upper Bavaria, Germany.
- (9633) CÓRDOBA AGUILAR, A., 1991. Estudio preliminar de los odonatos de Xalapa (Insecta: Odonata). *Resum. 26 Congr. nac. Ent., Veracruz*, pp. 309-310. [Abstract only]. — (Inst. Ecol., A.C., Aptdo Postal 63, MX-91000 Xalapa, Veracruz).
A commented list of 43 spp.; Xalapa, Veracruz, Mexico.
- (9634) FRANCEZ, A.-J., 1991. Atlas de répartition des libellules du Puy-de-Dôme. Bilan de 12 années de prospection. *Revue Sci. nat. Auvergne* 56: 29-47. (with Engl.s.). — (Lab. Ecol. Vegetale, Univ. Rennes-I, Complexe Scient. de Beaulieu, F-35042 Rennes).

A carefully annotated catalogue and distribution maps are given of the 67 spp. so far known from the Puy-de-Dome, France. A preliminary Red List, based on the IUCN classification, is proposed, and a comprehensive regional bibliography is appended.

- (9635) NOVELO-G., R. & E. GONZALEZ-S., 1991. Las nayades del orden Odonata en la Reserva de la Biosfera "La Michilia", Durango. *Resum. 26 Congr. nac. Ent., Veracruz*, p. 308. [Abstract only]. — (First Author: Inst. Ecol., A.C. Aptdo Postal 63, MX-91000 Xalapa, Veracruz). For the full paper cf. OA 8661.

- (9636) VON KÄNEL, A., 1991. *Fließgewässer im Kanton Bern. Lebensräume und Ökologie bernischer Bäche und Flüsse*. Gewässerschutzamt Kantons Bern, Bern. 40 pp. — (Available from: Gewässer- u. Bodenschutzlabor d. Kantons Bern, Schermenweg 11, CH-3014 Bern). *Calopteryx splendens* is photographically recorded under the reading, "Kanäle der Aare", i.e. Aare R., canton Bern, Switzerland.

1992

- (9637) (Anonymous), 1992. Vusien 1990 ja 1991 tulokset 21 suomalaisen hyönteislajin levinneisyyskartoituksesta. — Resultat av kartering av 21 insektarters utbredning i Finland år 1990 och 1991. — Results of the mapping in 1990 and 1991 of the distribution of 21 insect species in Finland. *Baptria* 17(2): 33-35. (Finn. & Swed., with Engl.s.). — (c/o Div. Ent., Zool. Mus., Univ. Helsinki, P.O. Box 17, SF-00014 Helsinki).
Continuation of the series as listed in e.g. OA 7262, 9574.

- (9638) BOSSELMANN, J. & W. HASSELBACH, [Eds], 1992. Jahresbericht: Libellen. *Jber. Pflanzen Tiere Rheinland-Pfalz* 3: 97-99. — (First Author: Lerchenweg 3, D-56727 Mayen). An annotated list of 16 spp., with locality codes and collection dates; — Rhineland-Palatinate, Germany.

- (9639) CLARK, T.E., 1992. *Dragonflies as habitat indicators of the Sabie River in the Kruger National Park*. M.Sc. thesis, Univ. Natal, Pieter-

maritzburg. — (Dept Zool. & Ent., Univ. Natal, P.O. Box 375, Pietermaritzburg-3200, RSA). [Not available for abstracting].

- (9640) CLARK, T.E. & M.J. SAMWAYS, 1992. Dragonflies and damselflies. *Custos* 21: 29-30. — (Dept Zool. & Ent., Univ. Natal, P.O. Box 375, Pietermaritzburg-3200 RSA). [Not available for abstracting].

- (9641) CÓRDOBA AGUILAR, A., 1992. Compartimiento reproductivo en *Ischnura denticollis* Burmeister (Odonata: Zygoptera: Coenagrionidae). *Resum. 27 Congr. nac. Ent., San Luis Potosi*, pp. 52-53. [Abstract only]. — (Inst. Ecol., A.C., Aptdo Postal 63, MX-91000 Xalapa, Veracruz).
For the full paper cf. OA 8817 (title only).

- (9642) CÓRDOBA AGUILAR, A. & E. ALARCÓN GTZ., 1992. Analisis del comportamiento reproductivo en el genero *Ischnura* (Odonata: Coenagrionidae). *Resum. 27 Congr. nac. Ent., San Luis Potosi*, pp. 54-55. [Abstract only]. — (First Author: Inst. Ecol., A.C., Aptdo Postal 63, MX-91000 Xalapa, Veracruz).
Mainly based on literature, the reproductive behaviour is analysed in *I. aurora*, *denticollis*, *elegans*, *erratica*, *gemina*, *graellsii*, *ramburi* and *verticalis*.

- (9643) DUDGEON, D., 1992. *Patterns and processes in stream ecology. A synoptic review of Hong Kong running waters*. Schweizerbart'sche Verlagsbuchhandlung, Stuttgart. viii+147 pp. [*Binnengewässer* 29] — ISBN 3-510-40040-2. — (Author: Dept Zool., Univ. Hong Kong, Hui Oi Chow Sci Bldg, Hong Kong).
The analysis of Hong Kong stream ecology at three levels of integration — individuals, populations and communities — demonstrates how the attributes of individuals (foraging behaviour, morphology, growth, and so on) combine to generate population characteristics which, in turn, blend to produce spatial and temporal variations in community composition. These variations may involve downstream replacement of species along the length of a river, or seasonal changes in stream drift and benthic community composition at a single site. It is the attributes of individuals and populations which determine

the timing of breeding by aquatic insects, but adult emergence, mating, and subsequent recruitment of juveniles affects community composition by altering species relative abundance. The tolerance of the individuals making up a population to pollution-induced stress will also have implications for community structure, especially when - as in Hong Kong - pollution loads vary with the seasons. - In the monograph, the odon. are thoroughly considered, and a chapter (pp. 61-63) is devoted to the Order.

- (9644) EIKHORST, R., 1992. Relevanz typischer Tiergruppen der faunistischen Kartierung und ihre Synthese für eine Biotopbewertung. *In*: R. Eikhorst, [Ed.], Beiträge zur Biotop- und Landschaftsbewertung, pp. 23-37, Verlag Ökologie u. Faunistik, Duisburg. - ISBN 3-927138-02-8. - (Author: Langermannsweg 8, D(W)-2000 Hamburg).

In theoretical considerations on applicability of various vertebrate and invertebrate groups for the biotope assessment, the odon. are also included.

- (9645) HOENTJEN, B., [Coordinator], 1992. *Natuur in Drenthe. Achtergronddocument bij het provinciaal natuurbeleidsplan Drenthe*. - [*Nature in Drenthe. Background document for the nature management plan in the province of Drenthe*]. Dienst Ruimte en Groen, Provincie Drenthe, Assen. 240+ii pp. - ISBN none. - Price: NLG 25.- net. (Dutch).

Using (Dutch) vernacular nomenclature, the odon. assemblages, characteristic of various aquatic habitat types in the prov. of Drenthe, the Netherlands, are described and briefly discussed.

- (9646) NETTMANN, H.K., 1992. Artensättigung, Flächengröße, Wiederherstellbarkeit, Leitarten: Aspekte zur Auswertung faunistischer Daten. *In*: R. Eikhorst, [Ed.], Beiträge zur Biotop- und Landschaftsbewertung, pp. 7-22, Verlag Ökologie u. Faunistik, Duisburg. - ISBN 3-927138-02-8. - (Author: AG Evolutionsbiol., FB-2 Biol./Chem., Univ. Bremen, Postfach 330440, D(W)-2800 Bremen).

Contains brief references to the odon.

- (9647) POINAR, G.O., 1992. *Life in amber*. Stanford

Univ. Press, Stanford/CA, xvi+350 pp., 8 col. pls excl. - ISBN 0-8047-2001-0. - Price: UK £ 42.50.

Contains a brief chapter on dragonflies (pp. 98-99). - For a complete bibliography & checklist of the amber odon. cf. OA 3980; cf. also OA 3354.

- (9648) SCHLÜPMANN, M., 1992. Kartierung und Bewertung stehender Gewässer. *In*: R. Eikhorst, [Ed.], Beiträge zur Biotop- und Landschaftsbewertung, pp. 149-176, Verlag Ökologie u. Faunistik, Duisburg. - ISBN 3-927138-02-8. - (Author: Hierseier Weg 18, D-58119 Hagen-Hohenlimburg).

The odon. and amphibians are used as examples for the assessment and mapping of ponds.

- (9649) SCHMIDT, E., 1992. Wasserblüten am Rheinaensee in Bonn: Ein urbanes Ökosystem unter dem Regime von Tier und Mensch. *Tier & Mus.* 3(1): 20-28. (With Engl.s.). - (Biol. Didaktik, FB-9, Univ. Essen, Postfach 103764, D-45117 Essen).

Lists 3 odon. spp. from the city park "Rheinaensee" in Bonn, Germany.

- (9650) TITITZER, T., M. SCHLEUTER, A. SCHLEUTER, C. BECKER, H. LEUCHS & F. SCHÖLL, 1992. Aquatische Makrozoen der "Roten Liste" in den Bundeswasserstrassen, *Lauterbornia* 12: 57-102. (With Engl.s.). - (First Author: Bundesanst. Gewässererk., Kaiserin-Augusta-Anlage 15-17, D(W)-5100 Koblenz).

The occurrence and abundance in the waterways of the former "West Germany" of *Calopteryx splendens*, *C. virgo*, *Gomphus vulgatissimus*, *Onychogomphus forcipatus* and *Orthetrum brunneum* are stated and mapped.

- (9651) TÓTH, S., 1992. A Boronka-melléki Tájvédelmi Körzet szitakötő (Odonata) faunája. - The dragonfly fauna of the Boronka-melléki Nature Conservation Area (Odonata). *Stud. panonica* (A)7: 75-88. (Hung., with Engl.s.). - (Rákóczi tér 1, HU-8420 Zirc).

34 spp. are listed and the fauna is discussed. Of local interest are *Chalcolestes viridis*, *Soma-tochlora metallica* and *Sympetrum pedemontanum*.

- (9652) VIESSMANN, R., 1992. Libellen-Bestandsaufnahme im LSG Bachauen, Donnersbergkreis. *Jber. Pflanzen Tiere Rheinland-Pfalz* 3: 87. – (Gängelstockweg 8, D-67295 Bolanden). A checklist of 14 spp., with annotations on their abundance; – Rhineland-Palatinate, Germany.
- (9653) VINGADA, J.V., 1992. Efeitos da preservação em alcool a biomassa de alguns insectos aquáticos. – Effects of alcohol preservation on the biomass of some aquatic insects. *Bolm Soc. port. Ent.* (Supl.) 3(2): 643-651. (Port., with Engl.s.). – (Depto Zool., Univ. Coimbra, PT-3049 Coimbra).
In field biology, captured specimens are often preserved prior to a laboratory analysis. However, alcohol preservation may cause changes in weight, which are due to loss of volatile compounds, and might affect biomass determinations. In the present paper, the differences between fresh and preserved specimens weights, taking into account different preservation times, were examined. In some groups (Chironomini, Baetis, Ephemerella), alcohol preservation (70%) caused a 7-9% loss as compared with fresh weight. In the odon., alcohol did not significantly affect the biomass. It is argued, in large specimens, such as dragonflies, the losses in volatile compounds are inadequate to trigger measurable changes in biomass.
- 1993**
- (9654) (Anonymous), 1993. Vuoden 1992 tulokset 21 suomalaisen hyönteislajin levinneisyyskartoituksesta – Resultat av kartering av 21 insektarters utbredning i Finland år 1992 – Results of the mapping in 1992 of the distribution of 21 insect species in Finland. *Baptria* 18(1): 13-26. (Finn. & Swed., with Engl.s.). – (c/o Div. Ent., Zool. Mus., Univ. Helsinki, P.O. Box 17, SF-00014 Helsinki):
Continuation of the series as listed in e.g. *OA* 7262, 9574.
- (9655) ABBINGH, G.J.R., 1993. *Libellen van het Witterveld*. – [Dragonflies of the Witterveld]. Abbingh, Assen. vi+49 pp. (Dutch). – (Muddegoorn 78, NL-9403 NK Assen).
A carefully prepared review of the fauna of a heath/peat bog area S of Assen, the Netherlands (25 spp.). The composition resembles that in the similar areas in the Netherlands and in N Germany, incl. *Ceriagrion tenellum*, *Coenagrion lunulatum*, *Leucorrhinia dubia*, *L. rubicunda*, etc. Valuable are detailed habitat descriptions and ecology notes. Phenologically, the record of *Aeshna juncea exuviae* on 13-VI-1992 is of particular interest. Various management measures for the area are suggested.
- (9656) ADAMOVIĆ, Ž.R., 1993. Distribution of Odonata at Krupačko, jezero, Serbia. *Bull. Acad. serbe Sci. Arts* (Sci. nat.) 106(34): 9-22. – (Inst. Medical Res., P.O. Box 721, YU-11001 Beograd, Serbia).
24 spp. are reported from the karstic Krupačko Lake, nr Piroć, E Serbia (alt. 400 m). Their distribution, relative abundance and the adult behaviour are briefly described and discussed. An earlier record of *Coenagrion hastulatum* could not be confirmed.
- (9657) BENDER, B., 1993. Libellenvielfalt an neu angelegten Gartenteichen: Beobachtungen über 8 Jahre. *Ber. naturw. Ver. Bielefeld* 34: 3-10. – (Fontanestr. 15, D-33719 Bielefeld).
A record of dragonfly observations, during 8 yr, at 6 garden ponds in Bielefeld, Germany (13 spp.).
- (9658) BOSSELMANN, J., 1993. Bestandsaufnahme im NSG Mosbrucher Weiher. II. Libellen-Odonata. *Jber. Pflanzen Tiere Rheinland-Pfalz* 4: 140-141. – (Lerchenweg 3, D-56727 Mayen).
A checklist of 9 spp., with collection dates; Westeifel, Rhineland-Palatinate, Germany.
- (9659) BROMBACHER, A.A., W. HOOGENDOORN & B.H. LANJOUW, 1993. *De natuur uitgelicht. Milieu-inventarisatie van de overgangszone van de Utrechtse Heuvelrug naar de Gelderse Vallei*. – [Environment inventory of the transition area between the Utrechtse Heuvelrug and the Gelderse Vallei]. Prov. Utrecht, Utrecht. 83 pp., 5 maps excl. (Dutch). – Price: Hfl. 12.75 net. – (Authors' addresses not stated).
Contains general references to the odon. occurrence, where appropriate; the Netherlands.
- (9660) CÓRDOBA AGUILAR, A., 1993. Dinamica poblacional en *Hetaerina cruentata* (Rambur)

- (Odonata: Calopterygidae). *Resum. 28 Congr. nac. Ent., Cholula/Puebla*. pp. 64-65. [Abstract only]. — (Inst. Ecol., A.C., Apto Postal 63, MX-91000 Xalapa, Veracruz).
A preliminary note on population dynamics of *H. cruentata*. Several papers on various aspects of this subject are in the press.
- (9661) COSTA, J.M. & J.R. PUJOL-LUZ, 1993. Descrição da larva de *Erythemis mithroides* (Brauer) e notas sobre outras larvas conhecidas do gênero (Odonata, Libellulidae). *Revta bras. Zool.* 10(3): 443-448. (Port., with Engl.s.). — (Second Author: Depto Biol. Animal, Univ. Rural Rio de Janeiro, Seropédica, BR-23851-970 Itagui, R.J.).
Ultimate instar larva is described and illustrated from reared exuviae (Sao Joao R., R.J., Brazil). It is compared with *E. credula* and *E. vesiculosa*, and a general characterisation of the *Erythemis* larvae is outlined.
- (9662) DE MARMELS, J., 1993. Hallazgo de Odonata nuevos para Venezuela o poco conocidos. 8. *Boln Ent. venez.* (N.S.) 8(2): 156-158. — Inst. Zool. Agric., Fac. Agron., Univ. Central Venezuela, Apto 4579, Maracay 2101-A, Venezuela).
An annotated and commented list of 11 spp., of which *Acanthagrion rubrifrons*, *Agriogomphus ericae*, *Phyllogomphoides cornutifrons* and *P. undulatus* are for the first time recorded from Venezuela.
- (9663) EARLY, J.W. & R.F. GILBERT, 1993. Primary types of terrestrial and freshwater Protista, Annelida and Arthropoda in the Auckland Institute and Museum: an annotated list. *Rec. Auckland Inst. Mus.* 30: 49-86. — (Auckland Inst. & Mus., Private Bag 92018, Auckland-1, NZ).
2 odon. holotypes (both preserved wet) are listed, viz. *Xanthocnemis sinclairi* Rowe, 1987 (cf. *OA* 5951) and *X. tuanuii* Rowe, 1981 (cf. *OA* 3647).
- (9664) GONZÁLEZ SORIANO, E., 1993. Odonata de México: situación actual y perspectivas de estudio. *Revta Soc. mex. Hist. nat.* (Vol. Esp.) 44: 291-302. (With Engl.s.). — (Depto Zool., Inst. Biol., Univ. Nac. Autónoma México, Apto Postal 70-153, MX-04510 México, D.F.).
A checklist of 328 spp. so far known from Mexico, incl. 15 that are here recorded for the first time. In addition, 28 spp. are still undescribed. The poorly explored regions are pointed out, and the importance of odon. in the biodiversity studies is emphasised.
- (9665) JUNGSMANN, E., 1993. Die Libellen (Odonata) der Kleingewässer des Leinawaldes (Kreis Altenburg). *Mauritiana* 14(2): 47-53. — (Kanalstr. 35, D(O)-7400 Altenburg/Thür).
Odon. assemblages are briefly listed from 40 small aquatic bodies (26 spp.) in distr. Altenburg, E Germany.
- (9666) KHALIQ, A. & M. YOUSUF, 1993. Coenagrionidae (Zygoptera: Odonata) of Pakistan. 3. Subfamily Ischnurinae. *Pakistan J. Zool.* 25(4): 329-336. — (First Author: Dept Ent., Univ. Coll. Agric., Rawalakot, Azad Kashmir, Pakistan).
The 3 Pakistani genera, *Enallagma* (1 sp.), *Ischnura* (5 spp.) and *Rhodischnura* (1 sp.) are described, keyed and illustrated. *I. fontainei* is for the first time recorded for the Indian Subcontinent. — For the previous pts cf. *OA* 8955, 9288.
- (9667) KÖHLER, R., 1993. Ökologische und ökotoxikologische Wirkungsvielfalt von Bioziden auf die Lebensgemeinschaften stehender Gewässer am Beispiel des Insektizids Lindan. *Erweiterte Zusammenfass. Jtag. dt. Ges. Limnol.* 1993: 525-529. — (Umweltstiftung WWF-Deutschland, Hedderichstr. 110, D-60591 Frankfurt/Main).
The work is mainly based on that listed in *OA* 9424. After a certain period subsequent to its application, Lindane has lethal effects on larval Zygoptera (*Lestes sponsa*, *Coenagrion puella*, *Ischnura elegans*).
- (9668) MARCHAND, M., 1993. *Untersuchungen zur Pionierbesiedlung terrestrischer und limnischer Habitate eines bodenabbaugbietes im südlichen Wesertal mit besonderer Berücksichtigung der Biologie und Ökologie der Gelbbauchunke, Bombina v. variegata Linnaeus, 1758.* Cuvillier, Göttingen. xxxvii+279 pp. — ISBN 3-928815-68-7. — (Author: Finkenweg 4 A, D-37081 Göttingen; — Publishers: Non-

- nenstieg 8, D-37075 Göttingen).
Subsequent to the odonatol. M.Sc. dissertation as listed in *OA* 8170, this is a commercially published PhD thesis (Univ. Göttingen). In an exhaustive odon. chapter (pp. 166-196) it contains much of the information presented preliminarily in the M.Sc. work.
- (9669) MIKKOLA, K. & V. VARIS, 1993. [Book review]. Askew, R.R., 1988: The dragonflies of Europe [...]. *Entomol. fenn.* 4(4): 272. (Engl.). – (Zool. Mus., Univ. Helsinki, P. Rautatiekatu 13, SF-00100 Helsinki).
A comprehensive, slightly critical book review of the volume listed in *OA* 6357.
- (9670) MURDOCH, D.A. & T.J. LYLE, 1993. Butterflies, dragonflies and Orthoptera in London's East End – population changes 1987-1992. *Lond. Naturalist* 72: 69-84. – (First Author: Dept Microbiol., Southmead Hospital, Bristol, BS10 5NB, UK).
With reference to the paper listed in *OA* 7246, during 1987-1992 the odon. fauna has been reduced by damage to one major site, the Canada Dock, but the Essex Filter Beds, just to the N of the survey area, now hold 8 spp.
- (9671) PEÑA-OLMEDO, J. & R. NOVELO-GUTIÉRREZ, 1993. Estudio preliminar de la odonofauna de la parte occidental del Estado de Hidalgo. *Resum. 28 Congr. nac. Ent., Cholulal Puebla*, p. 106. [Abstract only]. – (Second Author: Inst. Ecol., A.C., Apto Postal 63, MX-91000 Xalapa, Veracruz).
71 spp., referable to 26 genera were recorded, but the names are not stated.
- (9672) PITZKE-WIDDIG, C., 1993. Zur Libellenfauna (Odonata) temporärer Gewässer im Gran Chaco Argentinien (Südamerika) und in Transvaal (Südafrika). *Verh. westdt. Ent. Tag.* 1992: 145-149. – (Ederstr. 1, D-35274 Kirchhain).
Commented checklists of 29 spp. from the Nylsvley Nature Reserve, 150 km N of Pretoria, Transvaal, South Africa, and of 25 spp. from Campos del Norte S.A., Salta, Gran Chaco, Argentina.
- (9673) PLATT, A.P., 1993. A late summer feeding frenzy by *Anax junius* L. [sic!] (Aeshnidae) in suburban Baltimore. *Phaeton* 14(2): 4. – (Dept Biol. Sci., Univ. Maryland Baltimore Co., 5401 Wilkens Ave., Catonsville, MD 21228-5398, USA).
A brief description of a feeding swarm, 5.30-6.30 p.m., 4-IX-1993, Baltimore.
- (9674) REGIERUNG DES KANTONS BERN, 1993. *Naturschutzverordnung (NSchV)*. Bern. 24 pp. With reference to the national Act listed in *OA* 8004, all odon. spp. in canton Berne, Switzerland, are placed under the usual "protection". – For a similar Regulation in canton Grisons cf. *OA* 8435.
- (9675) REITER, C., 1993. *Beobachtungen zur Autökologie von Ischnura pumilio Charpentier, 1825 und Ischnura elegans v.d. Linden, 1820 in der Umgebung von Freising (Insecta, Odonata)*. DiplArb. (Zool.) Univ. München. vi+72 pp., 7 col. pls excl. – (Pariser Str. 33, D-81667 München).
The autecology of the 2 spp. was studied at Freisinger Moos, Upper Bavaria, Germany, and the evidence compared with the available literature data. *I. pumilio* occurs rarely in habitats where the vegetation cover exceeds 65%. While *elegans* does not discriminate between horizontal and vertical oviposition sites, 90% of *pumilio* ♀ oviposit in vertical vegetation. Behavioural features and population dynamics of the 2 spp. are described and compared with the other local Coenagrionidae, and the local odon. assemblages (27 spp.) are briefly characterised. The bibliography on the 2 spp. is exhaustive.
- (9676) RUPPRECHT, R. & R. MAUDEN, 1993. Auswirkungen von Kompensationskalkungen auf die Fauna von versauerten Waldbächen im Hunsrück. In: *Waldschäden, Boden- und Wasserversäuerung durch Luftschadstoffe in Rheinland-Pfalz*, pp. 132-147, Minist. Landwirtschaft Rheinland-Pfalz, Mainz. – (First Author: Inst. Zool., Univ. Mainz, D-55099 Mainz).
Cordulegaster bidentata is recorded from 2 streams in the Hunsrück, Rhineland-Palatinate, Germany.
- (9677) SAMWAYS, M.J., 1993. Dragonflies (Odonata) in taxic overlays and biodiversity conservation. In: K.J. Gaston, T.R. New & M.J. Samways, [Eds], *Perspectives on insect conservation*, pp.

111-123, Intercept press, Andover/UK. — (Dept Zool. & Ent., Univ. Natal, P.O. Box 375, Pietermaritzburg-3200, RSA).

Insects are the major component of biodiversity as measured in numbers of spp. When assessing total biodiversity in a geographical area, the determination of total insect species richness is usually too massive a task to be of value in a conservation programme. The use of representative taxa may then be appropriate. Data for several such taxa can be geographically overlaid to give a meaningful picture of high value biodiversity areas. These are 'taxic overlays'. Experts on taxa should present both the advantages and disadvantages of their subject groups to enable fair evaluation of these taxonomic monitoring tools. The case for odon. is presented here. Odon. spp. are important both as environmental monitors and as subjects of conservation. Taxonomically they are fairly well known. They occur worldwide, and there are a world total number of spp., most of which are scientifically described, of about 5000-6000. This is a useful size for practical biodiversity assessments. The adult males are conspicuous and can often be identified in the field. Odon. have a useful range of biotope preferences for practical conservation, although generally they can only be related to certain environmental variables such as plant physiognomy and not to plant spp. The highly residential spp. have higher monitoring value than the migrants. The larvae, while recognizing that generally they are little known, are useful for assessing the water quality of aquatic systems. The adults, in turn, relate not only to water conditions but also landscape patterning adjacent to water bodies. Within genera, there are frequently allospecific ecological equivalents in different areas. Also, odon. are excellent for making decisions as to whether conservation is for endemism or typicalness. Although they do not have much to offer sustainable agriculture and development directly, they are excellent as umbrellas, representing land areas and faunas, in biodiversity conservation.

Nac., Quinta da Boa Vista, BR-20940-040 Rio de Janeiro, R.J.).

Both sexes are described and illustrated from ultimate instar larvae, collected in Sao Joao R., R.J., Brazil, and the similarities with various *Celithemis* spp. are briefly discussed.

(9678) SANTOS, N.D., J.M. COSTA & J.R. PUJOL-LUZ, 1993. Descrição da larva de *Diastatops obscura* (Fabricius) (Odonata, Libellulidae). *Revta bras. Zool.* 10(3): 467-472. (Port., with Engl.s.). — (Second Author: Depto Ent., Mus.

(9679) SCHMIDT, E.G., 1993. Individuelle Diagnose und Therapie von Kleingewässern auf der Grundlage des Nischenkonzeptes. *Metelen. SchrReihe NatSchutz* 4: 165-169. (With Engl.s.). — (Biol. Didaktik, FB-9, Univ. Essen, Postfach 103764 Essen).

Theoretical considerations relative to the individual diagnosis and therapy of small water bodies, based on the niche concept of ecosystem theory, as developed by the same Author (1992, *Faun.-ökol. Mitt.* 6: 335-341), and incl. some passing references to the odon.

(9680) SCHMIDT, E.G., 1993. Von der Faunistik zur Bioindikation. Zur historischen Entwicklung eines ökologischen Artenkonzeptes aus der Sicht der Freilandentomologie (Schwerpunkt Odonata). *Verh. westdt. Ent. Tag., Düsseldorf* 1991: 11-38. — (Biol. Didaktik, FB-9, Univ. Essen, Postfach 103764, D-45117 Essen).

A lucid and useful review of the history of development of classical faunistics towards the modern "ecological species concept", exemplified on the odon., and based mainly on German literature.

(9681) SCHMIDT, E.G., 1993. Zur Odonatenfauna eines Hochmoorrestes im westlichen Münsterland (NSG Fürstenkuhle im Velener Moor/ "Weisse Venn", Kr. Borken). *Erweiterte Zusammenfass. Jtag. dt. Ges. Limnol.* 1992(2): 470-473. — (Biol. Didaktik, FB-9, Univ. Essen, Postfach 103764, D-45117 Essen).

General aspects of the habitat and its odon. fauna are described, but only some of the 31 resident spp. are listed. Of interest are notes on behaviour of *Coenagrion hastulatum* and *Leucorrhinia pectoralis*.

(9682) SOMMERHÄUSER, M. & T. TIMM, 1993. Die ökologische Bedeutung der Fließgewässer im Naturraum Niederrheinische Sandplatten, dargestellt am Beispiel ausgewählter Wasserinsekten (Odonata, Plecoptera, Trichoptera). *Ver.*

westdt. Ent. Tag. 1992: 127-135. — (Second Author: Inst. Ökol., Univ. GH Essen, D-45117 Essen).

From the area along the Rhine R., between Oberhausen and the Netherlands border (Germany), 6 odon. spp. are listed, of which *Cordulegaster boltonii* is of some interest.

- (9683) *STUDIA ODONATOLOGICA HUNGARICA*, No. 1 (dated Dec. 30, 1993; received May 16, 1994). Published privately (100 copies printed), at irregular intervals, with consecutive pagination; Debrecen, Hungary. — HU ISSN 1217-453X. — Ed. Board incl. G. Dévai (Responsible Ed.), S. Tóth (Executive Ed.) and 4 members. — Standing orders: US \$ 5.-, or DEM 8.- postage incl., to be directed at Dr G. Dévai, Dept Ent., Kossuth Univ., P.O. Box 71, HU-4010 Debrecen, or (for the GdO members only) to Mrs U. Krüner, Gelderner Str. 39, D-41189 Mönchengladbach. (Hungarian, with Engl. colophons & s's).

Varga, Z.: Preface (pp. 5-8); — *Dévai, G., I. Dévai, B. Tóthmérész & M. Miskolczi*: Methodological problems in the evaluation of faunistic data taking dragonflies (Odonata) as an illustrative example. I. General principles (pp. 9-19); — *Dévai, G. & M. Miskolczi*: Faunistic results of the odonatological surveys carried out in the Juniper Woodland Landscape Protection District of Barcs (pp. 21-32); — *Dévai, G., J. Kátai & M. Miskolczi*: Faunistic results of the odonatological surveys carried out in the ET 56 UTM grid map quadrat. I. Preliminary issues (pp. 33-45); — *Dévai, G., M. Miskolczi & G. Kertész*: A programme for the compilation, processing and communication of unpublished data from collections of adult dragonflies (Insecta: Odonata) in Hungary, carried out by December 31, 1987 (pp. 47-52); — *Ujhelyi, S.*: Data on the dragonfly (Odonata) fauna of Hungary according to my scatter-collections by December 31, 1987 (pp. 53-61); — [Book reviews] (pp. 63-66).

- (9684) VALTONEN, P., 1993. Hyönteistieteellisiä tiedonantoja. — [Entomological notes]. *Diamina* 2: 36-39. (Finn.). — (Kaukolankuja 2, SF-36200 Kangasala).
Contains an annotated list of some 1990-1992 Finnish records of *Coenagrion puella*, *Soma-*

tochlora alpestris and *Libellula depressa*. While, in the Tampera region, the latter sp. was rare during 1970-1980, it is recently becoming more common.

- (9685) VAN LEEUWEN, R., 1993. *Basiskartering libellen en dagvlinders de Witten, 1992*. — [Pilot mapping of dragonflies and butterflies in the de Witten area, 1992]. Staatsbosbeheer, Pesse. iv+28 pp. (Dutch). — (Publisher: SBB Drenthe-Zuid, Oosterring 22, NL-7933 TM Pesse).
The distribution of 17 odon. spp. in this area, southern Drenthe prov., the Netherlands, as evidenced in 1992, is mapped and their habitat preferences are stated.
- (9686) VAN LEEUWEN, R., 1993. *Basiskartering libellen en dagvlinders natuurterreinen boswachterij Gees, 1992*. — [Pilot mapping of dragonflies and butterflies in the Gees Forestry Station nature areas, 1992]. Staatsbosbeheer, Pesse. iv+104 pp. (Dutch). — (Publisher: SBB Drenthe-Zuid, Oosterring 22, NL-7933 TM Pesse).
The distribution of 26 odon. spp. in this area, southern Drenthe prov., the Netherlands, as evidenced in 1992, is mapped and their habitat preferences are stated.
- (9687) VAN LEEUWEN, R., 1993. *Basiskartering libellen en dagvlinders natuurterreinen boswachterij Sleenerzand, 1992*. — [Pilot mapping of dragonflies and butterflies in the Sleenerzand Forestry Station nature areas, 1992]. Staatsbosbeheer, Pesse. iv+175 pp. (Dutch). — (Publisher: SBB Drenthe-Zuid, Oosterring 22, NL-7933 TM Pesse).
The distribution of 29 odon. spp. in this area, southern Drenthe prov., the Netherlands, as evidenced in 1992, is mapped and their habitat preferences are stated. The record of *Aeshna subarctica elisabethae* is of particular interest.
- (9688) VAN LEEUWEN, R., 1993. *Basiskartering libellen en dagvlinders natuurterreinen Wapserveense petgaten, 1992*. — [Pilot mapping of dragonflies and butterflies in the Wapserveen bog, 1992]. Staatsbosbeheer, Pesse. iv+71 pp. (Dutch). — (Publisher: SBB Drenthe-Zuid, Oosterring 22, NL-7933 TM Pesse).
The local occurrence of 18 odon. spp. in the largely overgrown ditches, left from peat cut-

ting, at present almost without open water, is mapped and species-wise discussed; – southern Drenthe prov., the Netherlands.

- (9689) [VIESSMANN, R.], 1993. Jahresbericht: Libellen-Odonata. *Jber. Pflanzen Tiere Rheinland-Pfalz* 4: 115-116. – (Gängelstockweg 8, D-67295 Bolanden).

An annotated list of 14 spp., with locality codes and collection dates; Rhineland-Palatinate, Germany.

- (9690) VIESSMANN, R., 1993. Libellen-Bestandsaufnahme in d. LSG Bachauen, Donnersbergkrs. *Jber. Pflanzen Tiere Rheinland-Pfalz* 4: 111. – (Gängelstockweg 8, D-67295 Bolanden).

A checklist of 18 spp., with annotations on their abundance; Rhineland-Palatinate, Germany.

- (9691) WEISS, K. & H.-J. SCHWAB, 1993. Libellenfauna – Odonata – der Verbandsgemeinde Bellheim 1993-TK 6715. *Jber. Pflanzen Tiere Rheinland-Pfalz* 4: 106-107. – (Author's addresses not stated).

A checklist of 16 spp.; Rhineland-Palatinate, Germany. As compared with 1992, the population of *Libellula fulva* increased, and *Ophiogomphus caecilia* was autochthonous in the Queich.

- (9692) WEITZEL, M., 1993. Zur Libellenfauna des Koppelsteingebietes am Mittelrhein. *Fauna Flora Rheinland-Pfalz* (Beih.) 8: 177-187. – (Graf-Regina-Str. 43, D-54294 Trier).

A detailed chemical analysis of a pond in the Koppelstein area, Middle Rhine, Germany is presented, and the local odon. assemblage (13 spp.) is described and briefly discussed.

- (9693) YUSOFF, N.-R., 1993. Dramatic behaviour of Odonata. *Nature malaysiana* 18(1): 21-23. – (Dept Zool., Univ. Malaya, 59100 Kuala Lumpur, Malaysia).

A general article, briefly describing various patterns of odon. behaviour, with numerous col. photos from the Malaysian dragonfly life.

1994

- (9694) *ABSTRACTS OF PAPERS AND POSTERS PRESENTED AT THE 1st ODONATOLOGI-*

CAL SYMPOSIUM OF THE ALPS-ADRIATIC REGIONAL COMMUNITY, Maribor, Slovenia, 3-7 July 1994. 1994. Edited by M. Kotarac. Issued by the Slovene Odonatological Society, Naklo. 24 pp. – Price: Hfl. 25.- net. – (Orders to: Editors of Odonatologica, P.O. Box 256, NL-3720 AG Bilthoven).

P a p e r s: *Ambrus, A., K. Bankuti & T. Kovacs*: Laying of a foundation of the Odonata fauna of West Pannonia on the basis of spreading the larvae (p. 5); – *Adamović, Z.R., Lj. Andjus & Lj. Mihajlović*: Habitat distribution and biogeographical features of the Odonata species in the Durmitor Range, Montenegro (p. 6); – *Biedermann, J.*: Die Libellen-Fauna der Flachmoore des Fürstentums Liechtenstein (p. 7); – *Franković, M. & P. Herljević*: Rare species in Croatian dragonfly fauna (p. 8); – *Jödicke, R.*: Reproductive aspects of *Orthetrum cancellatum* in a mediterranean water tank (p. 9); – *Kiauta, B. & M. Kiauta*: A quarter of a century of the International Odonatological Society (S.I.O.) (p. 10); – *Kotarac, M. & M. Bedjanič*: *Somatochlora metallica* (Vander Linden) and *Somatochlora meridionalis* Nielsen in central Europe (p. 11); – *Müller, R.A. & M. Hämäläinen*: Die Odonaten der Philippinen, ihre Habitate und Verbreitung (p. 12); – *Ott, J.*: Do dragonflies have a chance to survive in an industrialised country like Germany? (p. 13); – On the significance of dragonflies as target species for the protection and development of lotic waters (p. 14); – On the status of dragonfly protection in Germany: results of an actual nationwide survey (p. 15); – *Sternberg, K.*: Zur Ökologie von *Aeshna caerulea* (Anisoptera: Aeshnidae) (p. 16); – *Utzeri, C., L. Dell'Anna, M. Cobolli & E. De Matthaëis*: Preliminary data on the genetic differentiation between *Chalcolestes parvidens* (Artobolevski, 1929) and *C. viridis* (Vander Linden, 1825) (Zygoptera: Lestidae) (p. 17). – P o s t e r s: *Dell'Anna, L., C. Utzeri, E. De Matthaëis & M. Cobolli*: Preliminary information on the occurrence of *Chalcolestes viridis* (Vander Linden, 1825) and *C. parvidens* (Artobolevski, 1929) in Italy (Zygoptera: Lestidae) (p. 18); – *Bedjanič, M. & M. Kotarac*: Contribution to the knowledge of *Epitheca bimaculata* (Charpentier) in Slovenia (p. 19); – *Gorb, S.N.*: Damselfly ovipositor leaves: microsculpture of surfaces moving eggs and neuroanatomy of cen-

tral projections of sensilia (p. 20); – *Kotarac, M.*: Slovene Odonata Mapping Project: the present status (p. 21); – *Pirnat, A.*: About a population of *Pyrrhosoma nymphula* (Sulzer) in a forest pond near Ljubljana, Slovenia (p. 22); – *Raab, R.*: Die Besiedlung des Marchfeldkanals (Niederösterreich) durch Libellen (Odonata) (p. 23). – For the Program of the Symposium cf. OA 9754, for some newspaper reports cf. OA 9716.

- (9695) *ADVANCES IN ODONATOLOGY*, Vol. 6 (257 pp.), Apr. 1994. Edited by J. Legrand & C. Utzeri; published by the Societas Internationalis Odonatologica (S.I.O.), Paris. Price: Hfl. 150,- net. – Vols 1-6, with Standing Order: Hfl. 600,- net [Vol. 2 is almost out-of-print!]. – (Orders to the Editors of *Odonatologica*, P.O. Box 256, NL-3720 AG Biltoven).

[The volume is dedicated to the memory of the late Professor Dr Janny M. van Brink; a portrait is included on p. 1]. – *Legrand, J.*: A Janny (p. 3). – PROCEEDINGS OF THE ELEVENTH INTERNATIONAL SYMPOSIUM OF ODONATOLOGY, Trevi, 18-25 August 1991: *Utzeri, C.*: A Janny M. van Brink (p. 6); – Preface (pp. 7-8); – *Belelli, U.*: Prefazione dello sponsor (p. 9); – *Carchini, G., M. Cobolli, E. de Matthaeis & C. Utzeri*: A study on genetic differentiation in the mediterranean *Ischnura Charpentier* (Zygoptera: Coenagrionidae) (pp. 11-20); – *D'Andrea, M. & S. Carfi*: Spines on the wing veins in Odonata. 3. The vein edge (pp. 21-43); – *Ferreras-Romero, M.*: Life history of the species that make up the odonate association characteristic of a permanent stream in the Western Mediterranean Basin: preliminary results (pp. 45-48); – *Martens, A.*: Field experiments on aggregation behaviour and oviposition in *Coenagrion puella* (L.) (Zygoptera: Coenagrionidae) (pp. 49-58); – *McKinnon, B.J. & M.L. May*: Mating habitat choice and reproductive success of *Pachydiplax longipennis* (Burmeister) (Anisoptera: Libellulidae) (pp. 59-77); – *Miller, P.L.*: Submerged oviposition and responses to oxygen lack in *Enallagma cyathigerum* (Charpentier) (Zygoptera: Coenagrionidae) (pp. 79-88); – *Schridde, P. & F. Suhling*: Larval dragonfly communities in different habitats of a mediterranean running water system (pp. 89-100); – *Suhling, F.*: Spa-

tial distribution of the larvae of *Gomphus pulchellus* Selys (Anisoptera: Gomphidae) (pp. 101-111); – *Zhu, H.-q. & G.-q. Liang*: *Phaenandrogomphus chaoi* spec. nov., a new dragonfly from Guangdong, People's Republic of China (Anisoptera: Gomphidae) (pp. 113-116). – PROCEEDINGS OF THE SYMPOSIUM ON ODONATOLOGY OF CENTRAL EUROPE, Albert-Ludwigs-Universität, Freiburg, 23 February 1991 [compiled by R. Buchwald]: *Wilmanns, O.*: Vorwort (pp. 119-120); – *Buchwald, R.*: Die Bedeutung der Vegetation für die Habitatwahl von *Ceriagrion tenellum* (Villers) in Südwest-Deutschland (Zygoptera: Coenagrionidae) (pp. 121-147); – *Steinrücken, H.*: Der Kopf der Libellen: ein organ der Gestaltung (pp. 149-175); – *Sternberg, K.*: Niche specialization in dragonflies (pp. 177-198); – *Wildermuth, H.*: Dragonflies and nature conservation: analysis of the current situation in central Europe (pp. 199-221); – *Habitatselektion bei Libellen* (pp. 223-257).

- (9696) *ARGIA. The news journal of the Dragonfly Society of the Americas*. Vol. 6, Nos 1/2 (July 1, 1994). – (c/o Dr & Mrs T.W. Donnelly, 2091 Partridge Lane, Binghamton, NY 13903, USA). *Tennessee, K.J. & S. Krotzer*: A synopsis of the First Southeastern DSA Regional Meeting (pp. 2-3); – *Donnelly, N.*: Delaware River trip – rain once more (p. 3); – *Donnelly, N. & K. Soltesz*: More gomphid records from the Delaware River (p. 3); – *Dunkle, S.W.*: Madagascar (pp. 4-8); – *Daigle, J.*: Ka-powie! It's Kauai! or Jurassic Park dragonflies (pp. 8-10); – *Orr, R.*: A visit to New Zealand (pp. 10-12); – *Donnelly, N.*: Some recent records of interest (p. 13); – *Tennessee, K.J.*: Is *Somatochlora hineana* resident in Alabama? (p. 13); – *Donnelly, N. & A. Donnelly*: Back to Tennessee (pp. 13-14); – *Orr, R.*: Tumbling dragonflies (p. 14); – *Gorb, S.*: Some observations on the behaviour of *Sympetma annulata* Selys (Zygoptera: Lestidae) in autumn in the central Ukraine (p. 15); – *May, M.*: Some more input on collecting policies (pp. 15-17); – *Donnelly, T.W.*: Why collect? (pp. 17-19); – *Tennessee, K.J.*: Feeding teneral adult dragonflies – and more on rearing (pp. 19-20); – (*Anonymous*): Carl Cook's study of *Macromia* (p. 20); – Bob Barber's report on Cumberland Co., NJ, odonates

- (p. 21); – Reprint version of BCA available (p. 21); – Ohio Dragonfly Newsletter (p. 21); – *Daigle, J.*: 1994 DSA Financial Report (p. 21); – *Recent mailing list for Argia and/or BAO* (pp. 22-26).
- (9697) BAUMGARTNER, D. & U. STEPHAN, 1994. Limnologische Untersuchungen an der Pfinz (Nordbaden). *Naturk. Beitr. DJN* 29: 6-16. – (First Author: Sautierstr. 27, D-79104 Freiburg). The paper mainly deals with chemical properties of the Pfinz R., Baden, Germany, and contains records of *Platycnemis pennipes* and *Les-tes viridis*.
- (9698) BELLE, J., 1994. Four new species of *Aphylla* from Brazil (Odonata: Gomphidae). *Ent. Ber., Amst.* 54(7): 138-144. – (Onder de Beumkes 35, NL-6883 HC Velp). From ♂ holotypes are described: *A. janirae* sp.n. (Dois Irmãos, Pernambuco, 22-VII-1944: MNRJ), *A. linea* sp.n. (Cuiabá-Jaciara, Mato Grosso, 8-IV-1963; MNRJ), *A. barbata* sp.n. (Sta Isabel de Rio Negro, Amazonas, 23-VII-1962; CM), and *A. exilis* sp.n. (Gurupá, Pará, 17-X-1970; CM). A key to the males of the genus is also provided.
- (9699) BOLWIN, J., 1994. Wesen wie aus Poesie und Wellenfunkel. *Allgemeine Ztg* (Wochenend JI), issue of 16 July, 1 p. A comprehensive general article on dragonflies, in a German daily, with emphasis on the Rhine-Palatinate situation.
- (9700) BORCHERDING, J., T. BECKER, A. SCHLEGEL & A. KURECK, 1994. Beitrag zur Kenntnis der Odonatenfauna der Donauauen bei Stopfenreuth (Niederösterreich). *Lauterbornia* 15: 89-93. (With Engl.s.). – (Aussenstelle Grietherbusch, Zool. Inst., Univ. Köln, D-46459 Rees-Grietherbusch). 18 spp. are recorded (June, 1993) at the oxbow lake of Rosskopf, Danube floodplains, Stopfenreuth, Lower Austria, and the status of some spp. is briefly discussed.
- (9701) BORCHERDING, J., U. KUHNE, M. LEHMANN-GREIF, S. OUALI, J. STAHL & W. WIPKING, 1994. Zur Libellenfauna zweier Seen im Berner Oberland (Odonata). *Ent. Ber., Luzern* 31: 155-162. (With Fr.s.). – (Physiol. Okol., Zool. Inst., Univ. Köln, Weyertal 119, D-50923 Köln-41). The odon. assemblages of Wyssensee, E of Brienzler See, alt. 634 m (10 spp.) and Stocksee on the Grimselpass road, alt. 1618 m (7 spp.) are briefly described and discussed; Switzerland.
- (9702) BRICAULT, P., 1994. La réserve de la tourbière du Beillard... ou l'exemple de travaux de gestion écologique. *Revue forest. fr.* 46(1): 19-24. – (Office National des Forêts, 28 rue de la Bolle, F-88100 Saint-Dié). A brief description of the Reserve (the Vosges, alt. 615 m) and its management. Dr G. Jacquemin (Univ. Nancy) is on the Management Board. In order to facilitate the local breeding of *Coenagrion hastulatum*, *Somatochlora arctica* and *Leucorrhinia dubia*, several ponds were dug out in the acid bog in Oct. 1992, but a report on the effects of these could not be as yet included in the present paper.
- (9703) BRUNELLE, P.-M., 1994. *Collecting dragonflies and damselflies in eastern Canada, with a species list and distribution for northeastern north America*. Brunelle, Halifax. 38 pp. – ISBN 1-896159-00-1. – Price: Can \$ 10.- net. – (2460 John St., Halifax, NS, B3K 4K7, CA). A revised edition of the work listed in OA 9384.
- (9704) CALVERT, P.P., 1994 [reprint]. Neuroptera-Odonata. *Biologia cent.-am.* 2, pp. i-xxx, 17-342; Suppl. pp. 342-420, pls 2-10, 1 map. Published originally in 18 pts, 1901-1908. – (Orders to: "L.A. Out-of-print, On-demand Publishing", P.O. Box 10716, Burbank, CA 91510-0716, USA; – Price: US \$ 238.- net, plus postage US \$ 37.80). A colour reprint of this classical work is now available. – The legendary series of *Biologia Centrali-Americana* is being reprinted as a colour facsimile on acid-free paper. These are quality library-bound, hardcover reproductions, using only the finest, most colour-saturated media for the plates. This contribution to the knowledge of the fauna and flora of Mexico and Central America, edited by F.D. Godman and O. Salvin, London, 1879-1915, is the hallmark series. It consists of 61 volumes, contain-

ing 1,270 plates, covering archaeology, arachnids, birds, botany, chilopods and diplopods, insects, mollusks, mammals, fishes, reptiles and amphibians and an introductory volume.

- (9705) CLARK, T.E. & M.J. SAMWAYS, 1994. An inventory of the damselflies and dragonflies (Odonata) of the Kruger National Park, with three new South African records. *Afr. Ent.* 2(1): 61-64. — (Dept Zool. & Ent., Univ. Natal, P.O. Box 375, Pietermaritzburg-3200, RSA).
A commented list of 81 spp. *Pseudagrion coelestis*, *P. sjoestedti pseudosjoestedti*, and *P. sudanicum rubroviride* are for the first time reported from South Africa.
- (9706) CLASTRIER, J., D. GRAND & J. LEGRAND, 1994. Observations exceptionnelles en France de *Forcipomyia* (*Pterobosca*) *paludis* (Macfie), parasite des ailes de libellules (Diptera, Ceratopogonidae et Odonata). *Bull. Soc. ent. Fr.* 99(2): 127-130, col.pl. incl. (With Engl.s.). — (Third Author: Lab. Ent., Mus. Natn. Hist. Nat., 45 rue Buffon, F-75005 Paris).
F. (P.) paludis is an ectoparasite on dragonfly wings. Here, a ♀ *Libellula quadrimaculata*, harbouring ca 170 midges, is described. The redescription of the midge is also provided.
- (9707) CÓRDOBA AGUILAR, A., 1994. *Influencia del tamaño corporal y la residencia/cialidad sobre el éxito en las contiendas masculinas de la libellula Hetaerina cruentata (Rambur) (Odonata: Calopterygidae)*. Tesis Lic. Biol., Univ. Veracruzana, Xalapa-Enriques. viii+52 pp., 6 figs excl. — (Inst. Ecol., A.C., Aptdo Postal 63, MX-91000 Xalapa, Veracruz).
The influence of body size and previous residence was studied during more than 300 h in 183 males fighting for territories. The results indicate, the 2 parameters are related with the probability of winning the contest. 3 types of ♂ interactions were identified, and the male territorial system in this sp. is analysed and discussed in great detail.
- (9708) D'ANTONIO, C., 1994. Note su una popolazione di *Thecagaster bidentata* (Selys, 1843) della Campania (Italia meridionale) (Odonata, Cordulegastriidae). *Boll. Soc. ent. ital.* 125(3): 191-194. (With Engl.s.). — (Via A. Falcone 386/B, I-80127 Napoli).
From the Bussento R. (Salerno, Campania), a population is described, in which some individuals are referable to the nominate ssp., some others to *T. b. sicilica* (Fraser), suggesting the latter is not a good ssp.
- (9709) D'ANTONIO, C., 1994. Primi dati sugli odonati del Molise. (Odonata). *Boll. Soc. ent. ital.* 125(3): 187-190. (With Engl.s.). — (Via A. Falcone 386/B, I-80127 Napoli).
27 spp. are listed from this region of central Italy, of which 14 spp. are recorded for the first time. It is interesting, *Calopteryx virgo meridionalis* occurs on the Carpino and Fortore rivers, while the nominate ssp. is represented on the Tammaro R.
- (9710) DE JONG, R. & J. VAN TOL, 1994. *Gevangen op een eiland. Het Nationaal Natuurhistorisch Museum en entomologisch onderzoek in de Indo-Australische Archipel. — [Captive on an island. The National Natural History Museum (Leiden, the Netherlands) and entomological exploration in the Indo-Australian Archipelago]*. *Natn. Naturh. Mus., Leiden*. 20 pp. (Dutch). — (Second Author: *Natn. Naturh. Mus., P.O. Box 9517, NL-2300 RA Leiden*).
Directed at the general reader, the nicely illustrated booklet gives an excellent overview of the past and present insect exploration of the Archipelago, as conducted by the Leiden Nat. Hist. Mus. since its inception, in 1820. It contains several references to the odon. (e.g. *Diplacina*, *Macromia*, etc.) and, among others, col. field "portraits" of *Libellago asclepiades*, *L. rufescens*, *Rhinocypha frontalis* and *Celebothemis delectollei*.
- (9711) DE MARMELS, J., 1994. *Sciotropis lattkei* sp.n., eine neue Kleinlibelle aus Venezuela (Odonata: Megapodagrionidae). *Mitt. ent. Ges. Basel* 44(1): 30-35. (With Engl.s.). — (Inst. Zool. Agric., Fac. Agron., Univ. Central Venezuela, Aptdo 4579, Maracay 2101-A, Venezuela).
The new sp. (holotype ♂: Sucre, Paria Peninsula, Cerro El Humo, Rio Santa Isabel, alt. 550 m, 22-III-1993; deposited at MIZA, UCV) is described and illustrated on the bases of a single ♂ and 2 ♀. It differs from *S. cyclanthorum*

Racenis, the only other member of the genus, in the pronotum shape and in the ♂ caudal appendages structure. The 2 spp. are vicariants, each inhabiting a well separated portion of the Venezuelan Coastal Cordillera.

- (9712) DOLMEN, D., 1994. *En ferskanskbiologisk undersøkelse av Tjernsmyrtjern og Hosledammen i Baerum kommune, med råd om skjøtselstiltak*. – [A freshwater biological investigation of Tjernsmyrtjern Tarn and Hosledammen Pond in the municipality of Baerum, with suggestions on the management]. Baerum Kommune (Park- og Idrettsvesenet), Baerum. 18 pp. (Norwegian). – (Author: Mus., Univ. Trondheim, N-7004 Trondheim).
Lestes sponsa and Aeshna cyanea are recorded.
- (9713) *The DRAGON-FLIER. Newsletter of the Ohio Dragonfly Survey*, Columbus, Vol. 4, No. 1 (Jan. 1994), No. 2 (May 1994). – (c/o B. Glotzhober, Ohio Hist. Soc., 1982 Velma Ave., Columbus, OH 43211-2497, USA).
No. 1: Contains 3 notes by C. Cook, viz.: DSA Meetings (p. 2); – ISCA, a new organization is formed (p. 3); – Outstanding Ohio records for 1993 (p. 3). – The remaining notes are anonymous, viz.: New state species found (p. 1); – Mixed tandem pairs (p. 1); – From the press (p. 1); – Collection permits (p. 2); – Spring OOS Meeting/Workshop (p. 2); – Mini-grants for 1994 (p. 2); – Kids and dragons (p. 4). – No. 2: All notes are anonymous, viz.: Annual Meeting/Workshop Agenda (p. 1); – Un-publications available (pp. 1-2); – Dragonflies in the news (p. 2); – Safe storage of insect collections (p. 3); – Dragonflies frighten mosquitoes (p. 3); – Ohio Biological Survey (p. 3).
- (9714) DREYER, W. & U. ANDERS, 1994. *Libellen. Natur, München* 1994(6): 52-64. – (First Author: Zool. Mus., Hegewischstr. 3, D-24105 Kiel).
General, with emphasis on photographs.
- (9715) *EXUVIAE. Journal of the Slovene Odonatological Society, published in cooperation with the S.I.O.* Vol. 1, No. 1 (June, 1994). Executive Editor: I. Geister, with Ed./Referee Board. (Slovene & western congress languages, with Engl. s's). – Annual subscription: Hfl. 40.- net; or-
ders outside Slovenia to the Editors of Odonatologica, P.O. Box 256, NL-3720 AG Bilthoven). After Austria, Belgium, France, Germany, Hungary, India, Japan, the Netherlands, Thailand, the United Kingdom and the United States, Slovenia is the 12th country publishing a specialised odonatol. periodical (other than a newsletter). With a population of hardly 2 millions, the country has the highest "density" of odonatologists so far on record, and the Slovene SIO Chapter (registered locally as a national society) is among the most active national groups in SIO. The commencement of this periodical represents but one of the highlights in their recent achievements. (Another one is e.g. the organization of the First Odonatological Symposium of the Alps-Adriatic Regional Community, Bled-Maribor, July 1-7, 1994; cf. *OA* 9754), – The semiannual journal (13 x 23 cm, col. cover, with a frontispiece phot.) is designed for publication of minor, refereed papers, with emphasis on the fauna of the Alpine-Adriatic region, in the main languages of the Alps-Adriatic Community (incl. Slovene) and Engl.; all summaries in Engl. Publication is free and open to all workers. – **C o n t e n t s**: *Geister, I.*: Good morning, dragonflies! [Editorial] (p. i); – *Bedjanič, M.*: Odonate fauna of Turn fishponds (Rače: Slovenia) (pp. 1-4); – *Geister, I.*: Dragonflies of Šturmovci Landscape Park (Videm-pri-Ptuj, Slovenia) (pp. 5-8); – *Kiauta, B.*: A contribution towards the odonatological bibliography of Slovenia (pp. 9-15); – *Pilon, J.G.*: Recollections of an odonatological cooperation between the universities of Montreal and Ljubljana (p. 16).
- (9716) F.H., 1994. Simpozij o odonatologiji – vedi o kačjih pastirjih. – [A symposium on odontology – a science on dragonflies]. *Slovenec* 78(154): 6; issue of July 6. (Slovene). – (c/o M. Kotarac, Marohovih 11, SLO-62000 Maribor).
An informative article on the First Odonatological Symposium of the Alps-Adriatic Regional Community, in the oldest national daily in Slovenia. The gathering was organised by the Slovene Odonatological Society (Organising Secretary M. Kotarac) in the city of Maribor, Slovenia (July 3-7, with a Pre-Symposium Field Trip to Bled and Pokljuka, July 1), and it was

- attended by workers from 12 countries (Austria, Croatia, Finland, Germany, Hungary, Italy, Liechtenstein, the Netherlands, Serbia, Slovenia, Switzerland, Ukraine). Presenting 19 technical papers and posters. The Symposium also issued a formal Recommendation relative to the odon. conservation and management in the Pohorje Regional Nature Park, Slovenia (cf. *Notul. odonatol.* 4(4): 75; 1994). — Another brief note on the Symposium was published in the Maribor daily, *Večer*, issue of July 5, 1994, p. 9. — For other details cf. *OA* 9754.
- (9717) FERRITO, V., 1994. Les macroinvertébrés benthiques de la rivière Simoto (Sicile) et de quelques-uns de ses affluents. *Annls Limnol.* 30(1): 33-56. (With Engl.s.). — (Dipto Biol. Anim., Univ. Calabria, Via Androne 81, I-95124 Catania).
8 odon. spp. are recorded from the Simoto R. and 4 of its tributaries, Sicily, Italy.
- (9718) FINCKE, O.M., 1994. Female colour polymorphism in damselflies: failure to reject the null hypothesis. *Anim. Behav.* 47(6): 1249-1266. — (Dept Zool., Univ. Oklahoma, Norman, OK 73019, USA).
The adaptive significance of colour polymorphisms in adult females within the Odon. remains controversial. Proposed benefits for male-like andromorphs include increased reproductive isolation and/or decreased harassment from conspecific or heterospecific males. Proposed costs balancing such benefits are increased predation on andromorphs, and/or failure of andromorphs to mate at low male densities. Nevertheless, data from past studies are insufficient to reject convincingly the null hypothesis that colour polymorphisms are neutral with respect to natural or sexual selection. Long-term data on 2 spp. of *Enallagma* are presented that are consistent with the null hypothesis. Male responses to tethered females suggested that males more readily recognize the most abundant morph as 'female'. Nevertheless, the 2 colour morphs did not differ in the time of day that they were seen in tandem, daily or lifetime mating frequency, life span, oviposition duration, inter-clutch interval, or maturation rate. These results indicated that male discrimination between morphs was predictive of neither costs nor benefits of the polymorphism in terms of female reproductive success.
- (9719) FORBES, M., 1994. Tests of hypotheses for female-limited polymorphism in the damselfly *Enallagma boreale* Selys. *Anim. Behav.* 47: 724-726. — (Dept Biol., Univ. Regina, Regina, SK, S4S 0A2, CA).
Mature ♀ of *E. boreale* are either blue (♂-like) or green; this colour polymorphism is not age related. Field experiments in an Ontario marsh, Canada, indicated a greater ♂ attraction to ♂-like females. In the field, the latter outnumbered individuals of the other morph.
- (9720) GLOTZHOBBER, R.C., 1994. Searching for Ohio's dragons. *Wild Ohio* 5(1): 10-11. — (Ohio Hist. Soc., 1982 Velma Ave., Columbus, OH 43211-2497, USA).
A call for collaboration on the Ohio Odonata Survey. — Cf. also *OA* 9510.
- (9721) GOGALA, A., M. ALJANČIČ, M. GOGALA & I. SIVEC, 1994. *Insects, the flourishing multitudes*. Slovene Mus. Nat. Hist., Ljubljana [Entomologia slovenica]. 72 pp. — ISBN 961-90008-1-1. — Price: DM 25.- net. — (Orders to: Slovene Mus. Nat. Hist., Prešernova 20, P.O. Box 290, SLO-61001 Ljubljana).
Engl. (slightly modified) ed. of the work listed in *OA* 8832.
- (9722) HANCOCK, E.G., 1994. Insect records from the West of Scotland in 1992. *Glasg. Nat.* 22(4): 381-384. — (Art Gallery & Mus., Kelvingrove, Glasgow, G3 8AG, Scotland, UK).
Libellula quadrimaculata is recorded from Loch Ard, Stirlingshire.
- (9723) HAWKING, J., 1994. [Obituary]. John Anthony Linthorne Watson. *Newsl. austral. Soc. Limnol.* 32(1): 19. — (Murray-Darling Freshw. Res. Cent., P.O. Box 921, Albany, 2640, AU).
A brief biography.
- (9724) HILFERT, D., 1994. Habitat use within assemblages of dragonfly species during reproduction: weather impact. *Proc. 6th Int. Congr. Ecol., Manchester*, p. 272 [title only]. — (c/o Prof. Dr G. Ruppel, Zool. Inst., Techn. Univ., Pockelsstr. 10a, D-38106 Braunschweig).

[Poster not presented].

- (9725) HOESS, R., 1994. *Beiträge zur Biologie von Sympecma fusca (Vander Linden, 1820) (Odonata: Libellulidae)*. Zool. Inst., Univ. Bern. 35 pp. – (Normannenstr. 35, CH-3018 Bern).
This is a comprehensive study on life history, morphology, population biology and behaviour on a population at Auried, Bern, Switzerland.
- (9726) IHSSSEN, G., 1994. *Florida vom 15.03 bis 05.04.1994: Ein naturkundliches Reisetagebuch mit ausführlicher Behandlung der Libellenfunde (Odonata)*. Ihssen, Hamburg. ii+65 pp. – (Heisterkamp 18, D-22339 Hamburg).
A well-organized and very beautifully illustrated account of the March/April records of 51 odon. spp. from northern and central Florida, USA, with field annotations in Engl. Separate, county-wise checklists are given for 14 counties; these contain numerous new county records and cover also the hitherto poorly explored Hernando Co.
- (9727) JÄRVENTAUSTA, K., 1994. Seitsemisen kansallispuiston perhosista ja vänään muistakin hyönteisistä. – [On the Lepidoptera and other insects in the Seitsemien National Park]. *Diamina* 3: 17-25. (Finn.). – (Alakatu 3, SF-37600 Valkeakoski).
16 odon. spp. are listed from this NP in SW Finland.
- (9728) JOZANOVIĆ, M., 1994. *Djelovanje fenola na preživljavanje vodenih beskralješnjaka*. – [Effects of phenol on the survival of aquatic invertebrates]. Diplomski rad (= M.Sc. thesis) Univ. Zagreb. iv+74 pp. (Croatian). – (c/o Dr M. Franković, Dept Anim. Physiol., Univ. Zagreb, Rooseveltov trg 6, CRO-41000 Zagreb).
8 invertebrate spp., referable to Turbellaria, Gastropoda, Isopoda and Odon. (Coenagrion puella), were used. The latter appears among the most sensitive of the taxa examined. – For a more detailed study cf. OA 4623.
- (9729) KÖNIG, A., 1994. Die Bedeutung von Kiesgruben im Verbund mit primären Gewässern, aufgezeigt am Beispiel der Libellenfauna (Odonata) im Bereich des Wurzacher Beckens (Baden-Württemberg, Landkr. Ravensburg).
Veröff. NatSchutz LandschaftsPfl. Bad.-Württ. 68/69: 239-258. – (Himbach 7, D-88410 Bad Wurzach).
The paper is largely based on the M.Sc. work listed in OA 7905.
- (9730) LEFF, L.G., J.V. McARTHUR, J.L. MEYER & L.J. SHIMKETS, 1994. Effect of macroinvertebrates on detachment of bacteria from biofilms in stream microcosms. *Jl N. Am. benthol. Soc.* 13(1): 74-79. – (First Author: Dept Microbiol., Univ. Georgia, Athens, GA 30602, USA).
It is shown that the role of various macroinvertebrates, incl. an Aeshnidae sp., in movement of bacteria from biofilms (leaves) to water is limited. Instead, it may be controlled by physical forces and growth and sloughing within the biofilm. As far as the odon. are concerned, 24 or 72 h after inoculation, 4.89% of bacteria on their exoskeleton were derived from leaves (as to 0.60 and 0.19% in case of Ephemeroptera and Plecoptera, resp.).
- (9731) LEHMANN, G., 1994. *1000 Farbbilder der heimischer Pflanzen und Tiere*. [Explanatory text + 2 CDs]. Innovative Medien, Suppl & Gessmann, Kufstein. – ISBN none. – Price: öS 3500.- net (complete), öS 700.- net (book only). – (Orders to the Author: Kleinholzweg 25, A-6330 Kufstein).
This is an "electronic picture book", the first of its kind ever produced on dragonflies, to which order 185 (!) "slides" are devoted, showing a great deal of the Europ. spp. The Author's portrait and a brief biography are also provided. In the PC (col. monitor) any combination/selection of photographs can be arranged. The almost "countless" applicabilities of this work, whether in the school or elsewhere, are self evident. The Author is a well-known odonatologist, therefore most of the odon. photographs are showing the details required for taxonomic identification.
- (9732) *La LETTRE DES SOCIÉTAIRES* [of the Société Française d'Odonatologie], No. 2 (Apr. 24, 1994). – (c/o J.-L. Dommanget, 7 rue Lamartine, F-78390 Bois-d'Arcy).
The 1993 Jean Rostand Award of the Société Française d'Odonatologie was awarded to H. Heidemann and R. Seidenbusch, in appreciation

- of their work, listed in OA 9273. The 2nd SFO Colloquium is convened at Brenne (Indre), June 16-19, 1995; registration with Mr J.-L. Dommanget.
- (9733) *LIBELLENNIEUWSBRIEF*, Vol. 2 (1994), Nos 1 & 2 [no publication dates; for general information cf. OA 9550]. (Dutch). — (c/o V. Kalkman, v. Hogendorplaan 11, NL-1215 EG Hilversum). No. 1 contains a paper on the odon. fauna of the Vechtplassen (Noord Holland prov.), by V. Kalkman, and a list of noteworthy 1993 records of 16 spp. in the Netherlands, by M. Wasscher. — No. 2 merely gives some general information, suggestions and instructions relative to the current Odon. Mapping Scheme in the Netherlands.
- (9734) *LINDENIA. Notiziario dell'Ufficio nazionale italiano della Società odonatologica internazionale*, Roma, No. 22 (July 1, 1994). — (c/o Prof. Dr C. Utzeri, Dipto Biol. Anim. & Uomo, Univ. Roma "La Sapienza", Viale dell'Università 32, I-00185 Roma).
All communications by the Editor, C. Utzeri: Importanti cambiamenti nella SIO: proposte, incertezze e timori (pp. 99-100); — Archivio Hemianax (pp. 100-101); — Ancora sui nomi italiani delle libellule (pp. 101-102); — È morto Tony Watson (1935-1993) (p. 102). — In addition, the issue also contains a few management news items.
- (9735) LÖDERBUSCH, W., 1994. Auswirkungen von verschiedenen Grabenräumungsmethoden auf die Fauna von Entwässerungsgräben. *Veröff. NatSchutz LandschaftsPfl. Bad.-Württ.* 68/69: 73-108. — (Rebweg 23a, D-88677, Markdorf). The effects of various ditch cleaning methods on fauna of the irrigation ditches in southern Germany are described and discussed. The status of *Platynemis pennipes*, *Coenagrion mercuriale*, *Ischnura pumilio* and *Orthetrum coerulescens* in this type of habitats in the Lake Constance area is outlined in detail.
- (9736) MAASSEN, J., 1994. Beekjuffers langs onze grote rivieren. — [Calopterygidae on our large rivers]. *Veelpoot* 5(2): 12-13. (Dutch). — (J. Mosmanslaan 23, NL-5227 BB 's-Hertogenbosch).
- Calopteryx splendens* is recorded from the Meuse R. nr the city of 's-Hertogenbosch (1990, 1991) and nr Hedel (1993), the Netherlands.
- (9737) *MARTINIA. Bulletin des odonatologues de France*, Vol. 10, No. 1 (March, 1994). — (c/o J.-L. Dommanget, 7, rue Lamartine, F-78390 Bois-d'Arcy).
Orieux, G.: Observations odonatologiques sur l'île de Ré (Charente-Maritime) (pp. 1-2); — *Juliand, C. & P. Juliand*: Sur l'identification des exuvies d'*Onychogomphus f. forcipatus* (L., 1758) et d'*O. f. unguiculatus* (Vander Linden, 1820) (pp. 3-5); — *Papazian, M.*: La libellule en occitan (pp. 7-11); — *Viartheix, P.*: Une nouvelle société odonatologique en France (p. 12); — *Monnerat, C.*: Compte-rendu 5ème Symposium des Odonatologues de Suisse (pp. 13-16); — *Dommanget, J.-L.*: Rubrique bibliographique (pp. 16-19); — *Heidemann, H.*: Analyse d'ouvrage [OA 7825] (p. 20).
- (9738) MATSURA, T. & K. KOMATSU, 1994. Swimming pools as a conservation site in the urban area for dragonflies. *Proc. 6th Int. Congr. Ecol., Manchester*, p. 232 [abstract only]. — (First Author: Dept Biol., Kyoto Univ., Fukakusa-Fujimori-cho 1, Fushimi-ku, Kyoto, 612, JA).
[Verbatim]: A pond is one of the important habitats for dragonflies. Many ponds in urban areas, however, have been destroyed recently. We reveal swimming pools of schools are a useful habitat for some species of dragonflies. We took samples from 28 swimming pools of the primary schools in Kyoto City at the end of spring, to identify the larval dragonflies found there and to know their relative densities. As a result, we obtained 3 species of *Sympetrum*, *Orthetrum albistylum* and *Anax parthenope*. Especially, many larvae of *S. striolatum imitoides* were collected in most swimming pools. We selected as a research site one swimming pool having the highest density of larvae of *S. striolatum* among them, and examined their life history pattern, species composition of prey, and spatial distribution in the pool etc. We concluded (i) the life history of *S. striolatum* (egg-laying in mid autumn and adult emergence in early summer) fits the annual schedule of a swimming pool, (ii) a great number of midge larvae available for larval dragonflies exist in the pool, (iii)

if pool-cleaning before using the swimming pool is delayed a little later, more dragonflies will be able to emerge.

- (9739) MATTILA, K., 1994. Hyönteishavainnot 1993. — [Insect notes for 1993]. *Diamina* 3: 39-42. (Finn.). — (Lukonmäenkatu 18B/13, SF-33700 Tampere).
Some records from southern Finland, of *Pyrrhosoma nymphula*, *Epithea bimaculata* and *Sympetrum vulgatum*, provided by various collectors, are stated.
- (9740) MAUDEN, R., 1994. Der Einfluss der Gewässerversäuerung auf die Quellbachzoozönose. *LöBF-Mitt.* 1994(1): 24-28. — (Schulstr. 11, D-55425 Waldalgesheim).
Based on the evidence from Hunsrück, Germany, *Cordulegaster bidentata* still survives in moderately acid streams, characterised by pH 4.5 in the spring and pH 6.5 in the late summer. It almost always occurs in this type of water, and can reach the values of up to 1 mg/l.
- (9741) MEIER, C. & C. KEIM, [Eds], 1994. Anax. *Nouvelles Cent. suisse Cartogr. Faune* 7: 19-21. — (First Ed.: Postfach 23, CH-6838 Godingen).
This standard section of the Swiss Odonatological Society contains the following communications: *Announcement of the 7th Swiss Odon. Symp.* (p. 19, Bern, 19 Nov. 1994); — *Feldbeobachtungen* (p. 19); — [Meier, C.]: [Aufwurf] *Somatochlora meridionalis* vielleicht neu in der Schweiz? (p. 19); — *Hoess, R.*: *Libelleninventar des Kantons Bern* (pp. 19-20); — *Bibliographie* (p. 21; 2 titles for 1993).
- (9742) MOOG, O., M. KONAR & U.H. HUMPESCH, 1994. The macrozoobenthos of the river Danube in Austria. *Lauterbornia* 15: 25-51. (With Germ.s.). — (First Author: Abt. Hydrobiol., Inst. Wasserversorgung, Univ. Bodenkultur, Feistmantelstr. 4, A-1180 Wien).
48 odon. spp. are listed from the Danube R. and its backwaters in Austria.
- (9743) NEBOISS, A., 1994. Dr Zandis Spuris as a trichopterologist on his 70th birthday. *Braueria* 21: 17-18, portrait incl. — (Author's address not stated).
A comprehensive biography (born: Riga, Latvia, Jan. 25, 1923) and evaluation of his work, with emphasis on Trichoptera. — (*Abstracter's Note*: Z.S. commenced publishing on the odon. in 1943. His M.Sc. dissertation, a review of the odon. fauna of Latvia, was commercially published (1956) by Latvian Acad. Sci. During half a century he remains by far the most prolific odonatologist in the Baltic States of the former USSR; his odonatol. bibliography contains over 50 titles, incl. the book listed in OA 9564).
- (9744) NEL, A. & P. BRISAC, 1994. Découverte du premier Calopteryx fossile du Miocène de l'Ardèche (Odonata, Calopterygidae). *Bull. Soc. ent. Fr.* 99(1): 27-30. (With Engl.s.). — (First Author: 8 av. Gassion, F-13600 La Ciotat).
C. andancensis sp.n. is described and illustrated from the Upper Miocene (Lower Turolien) of Mt d'Andance, Ardèche, France (holotype MNHN-LP-R.10410, Paris). It appears close to the *C. atrata* group.
- (9745) NEL, A. & J.-C. PAICHELER, 1994. Les Gomphidae fossiles. Un inventaire critique (Odonata: Gomphidae). *Annls Soc. ent. Fr.* (N.S.) 30(1): 55-77. — (First Author: 8 av. Gassion, F-13600 La Ciotat).
A commented review is given of the hitherto known fossil Gomphidae, and *Araripegomphus cretacicus* gen.n., sp.n. (holotype ♀, deposited in coll. Baraffe, Paris) is described and illustrated from the Santana Formation, Lower Cretaceous of Chiapada do Araripe, NE Brazil.
- (9746) NEL, A. & J.-C. PAICHELER, 1994. Les Lestioidea (Odonata, Zygoptera) fossiles: un inventaire critique. *Annls Paléontol.* 80(1): 1-59. (With Engl.s.). — (First Author: 8 av. Gassion, F-13600 La Ciotat).
A review and reclassification of the hitherto known fossil taxa in Synlestidae, Lestidae, Sieblosiidae, Megapodagrionidae and Pseudolestidae. As new are described and illustrated: *Lestidae*: *Lestes lutzii* sp.n. (Upper Stampien, Upper Oligocene, Céreste, France; deposited in coll. H. Lutz, Darmstadt); — *Sieblosiidae*: *Parastenolestes oligocenicus* gen.n., sp.n. (Upper Stampien, Bouches-du-Rhône, France; MNHN-LP-R.07710); — *Megapodagrionidae* or *Synlestes*

tidae (affiliation uncertain): *Vulcagron* gen.n. (type sp. *Diplax propedemontanum* (Piton); – *Pseudolestidae*: *Prohypolestes dauphinensis* gen.n., sp.n. (Upper Stampien, Dauphin, France; MNHN-LP-R.07902). – Almost 33% of the known taxa are of uncertain systematic position. While the Lestidae appear of little palaeoclimatic significance, the other families are valuable in reconstruction of palaeoclimatic and palaeobiogeographic conditions.

- (9747) ORIEUX, G. & J.C. LALEURE, 1994. Les odonates des Étangs de Vaux (communes de Bazolles, La Collancelle et Vitry-Laché, Nièvre). *Nature Nièvre* 1994(2): 16-24. – (First Author: 25 rue Gambetta, F-58000 Nevers). The fauna (31 spp.) of 6 bogs is listed and briefly discussed; Dép. Nièvre, France.

- (9748) OSTERWALDER, R., 1994. Die Grüne Keiljungfer im Reusstal. *Landschaft Aargau* 1994(1): 1-4. – (Unterdorf 7, CH-5642 Mühlau). A description of the relatively large *Ophiogomphus cecilia* population on the Reuss R., canton Aargau, Switzerland.

- (9749) OTT, J., 1994. Do dragonflies have a chance to survive in industrialized countries? *Proc. 6th Int. Congr. Ecol., Manchester*, p. 25 [abstract only]. – (L.A.U.B., Hölzengraben 2, D-67657 Kaiserslautern). [Verbatim]: Using information from a variety of authoritative, up-to-date sources including ecologic base data, the author characterises trends in environmental impact on dragonfly biotopes in Germany, taken as an example for an industrialised country. – Having identified also the cause of these impacts, the author extrapolates from this analysis to construct a scenario that reveals the likelihood of dragonflies retaining viable populations in Germany in the future and the conditions needed to secure this. – This exercise shows that while the impact persists, nearly all spp. are being negatively affected in the long term. A distinction is drawn between the causes and symptoms of environmental stress on biotopes. – Using alluvial areas of rivers as an example of an effective means of relieving symptoms, the author pro-

poses an array of measures that, while feasible in the present economic climate, would help to protect and to develop the integrity of a high quality biotope, and therefore also of its constituent dragonfly fauna as an indicator of environmental quality for the whole biocoenosis.

- (9750) PEDERSEN, H. 1994. *Somatochlora sahlbergi* Trybom, 1889 (Odonata: Corduliidae), en ny art for Norge. – [*Somatochlora sahlbergi* Trybom, 1889 (Odonata: Corduliidae), a new species for Norway]. *Insekt-Nytt* 19(1): 5-7. (Danish). – (Mellemvej 15, DK-8800 Viborg). A detailed circumstantial evidence, with maps and figs, on the sight record as listed in OA 8579.

- (9751) PEDERSEN, H. & M. HOLMEN, 1994. *Fredede insekter i Danmark. 4. Guldsmede*. – [Protected insects in Denmark. 4. Dragonflies]. *Ent. Meddr* 62(2): 33-58. (Danish, with Engl.s.). – (First Author: Mellemvej 15, DK-8800 Viborg).

Since 1991 the collecting and killing of *Aeshna viridis*, *Ophiogomphus cecilia* and *Leucorrhinia pectoralis* is prohibited by Danish Law. The present paper is almost a small monograph on the status of the 3 spp. in Denmark. – *A. viridis* was reported from about 30 localities, mainly in southern and eastern parts of the country. Additional breeding sites probably also exist, characterized by older, well developed vegetation of the plant *Stratiotes aloides*. However, as the number of such localities seems decreasing *A. viridis* is considered decreasing, or perhaps vulnerable, in Denmark. Danish records of *O. cecilia* are known from at least 4 neighbouring water systems in Jutland. Most records are from larger streams. At least 3 water systems still support fairly strong populations. Many records are of very recent origin, but it is likely that the regulation and pollution of many streams and banks have actually during this century caused the sp. to decrease somewhat in Denmark. *O. cecilia* is now considered rare and perhaps vulnerable in Denmark. *L. pectoralis* has been recorded from less than 20 Danish localities, and only one breeding locality is known at present. This sp. probably benefitted from the many peat pools created earlier in the century, but eutrophication and over-growing of habitats have then caused a decline, at least

in the well studied region of NE Zealand. *L. pectoralis* is now considered endangered in Denmark. *Leucorrhinia caudalis* and *L. albifrons*, protected through international regulations, are known from a few Danish localities. However, they have not become protected by Danish legislation, as they are now considered extinct here.

- (9752) PETERS, H.P.J., 1994. Presence of exuviae as an indication of successful reproduction of dragonflies (Odonata) in the "Overasseltse- en Hartse vennen". *Ent. Ber., Amst.* 54(6): 123-127. — (Kerkstraat 130, NL-5931 NN Tegelen). Exuviae were sampled at 23 heathland pools. Their occurrence was related to water quality, as expressed by the pH values. — For other papers on this nature reserve in the Netherlands cf. *OA* 5633, 6402.
- (9753) PILON, J.-G. & D. LAGACÉ, 1994. Faune odonatologique de la rivière des Mille Îles, Québec, Canada. *Opusc. zool. flumin.* 122: 1-6 (With Engl.s.). — (Dép. Sci. biol., Univ. Montréal, C.P. 6128, QC, H3C 3J7, CA). 28 spp. were evidenced during a thorough survey of this important Montreal region river, and the faunal diversity is significantly higher than that of the Rivière-aux-Chiens (cf. J.-G. PILON, 1980, *Notul. odonatol.* 1: 85-87). *Ischnura verticalis* and *Enallagma exulans* are largely dominating. 59.2% of the resident spp. are emerging during late May and June. Generally, the adult season is somewhat shorter than in lentic habitats, but it is longer than in the odon. community of a nearby brook. Some extension of flight period was recorded in *Enallagma carunculatum*, *E. exulans*, *Aeshna constricta* and *Epi-theca canis*.
- (9754) [PROGRAM OF THE] FIRST ODONATOLOGICAL SYMPOSIUM OF THE ALPS-ADRIATIC REGIONAL COMMUNITY, Maribor, Slovenia, 3-7 July 1994. Compiled by M. Kotarac. Slovene Odonatological Society, Naklo. 6 pp. — (Copies of the folder are available free from the Editors of *Odonatologica*, P.O. Box 256, NL-3720 AG Bilthoven). This is merely a time-table of the Symposium. For the abstracts of the presented papers and posters cf. *OA* 9694. The Symposium started with a Pre-Symposium Field Trip to the Moorland of Pokljuka (Bled, July 1), incl. a visit at the Triglav National Park Headquarters. The Symposium Dinner took place on July 5 (during which authentic folk songs from 7 provinces of Slovenia were presented by Ms *Ljoba Jenče*, Cerknica). The Post-Symposium Field Trips (July 6-7) were organised to 2 moorland localities on Pohorje Mts, and to several lowland habitats in the vicinity of Maribor. — For some newspaper reports cf. *OA* 9716. Interviews with Dr *B. Kiauta* and Mr *M. Kotarac* were broadcast by the Slovene TV. — (*Abstracter's Note*: The Second Odonatological Symposium of the Alps-Adriatic Regional Community is scheduled to take place in Vienna, Austria, in 1997. The Organising Secretary is Mr R. Raab, Anton-Brucknergasse 22, A-2232 Deutsch-Wagram).
- (9755) PRYSWITT, K.-P., 1994. Massenschlupf der Grossen Königlibelle *Anax imperator* Leach, 1815, 1993 in der Samtgemeinde Schwarmstedt. *Naturk. Beitr. Soltau-Fallingbostal* 1994(1): 80-83. — (Hauptstr. 132, D-31637 Rodewald). In northern Germany, *A. imperator* is widespread, but the abundance is usually low. In the present note, however, the circumstantial evidence is presented of a pond nr Schwarmstedt, where during May 15- July 3, 1993, 1511 exuviae were counted (of which 50.4% ♂). A graph, showing weather conditions, temperature and the number of collected exuviae, on particular dates is appended.
- (9756) ROMMERS, T., 1994. Wat b(1)oeit er in mijn tuintje? *Natura, Utrecht* 91(5): 102-104. (Dutch). — (Bosschenhoofdsestraat 2, NL-4744 RP Bosschenhoofd). A very general article, containing references to *Enallagma cyathigerum* and *Libellula depressa* in Author's garden pond.
- (9757) SAHLÉN, G., 1994. Ultrastructure of the eggshell of *Aeshna juncea* (L.) (Odonata: Aeshnidae). *Int. J. Insect Morphol. Embryol.* 23(4): 345-354. — (Sect. Ent., Dept Zool., Univ. Uppsala, Villavägen 9, S-752 36 Uppsala). The eggshell is described using scanning and transmission electron microscopy. The vitelline envelope is homogenous. The endochorion is

many-layered, the thickness of the sub-layers increasing from the inside and out. About 50 or more thin strata are arranged in a crystalline-like fashion, 0.17 μm thick, facing the vitelline envelope. This structure corresponds to the innermost chorionic layer (ICL) reported from *Drosophila melanogaster*. About 70 thin, bilaminar crystalline-like strata associated with a more electron-dense material, appear between the endochorionic sub-layers near the anterior end of the egg. The electron-dense exochorion is perforated with thin canals opening in small pores on the surface. The filamentous pre-chorion substance forming the exochorion, previously reported from *Aeshna*, is believed to form a paracrystalline region with a spherulite-like configuration comprising the inner half of the layer. At the anterior end of the egg, the endo- and the exochorion are anchored to each other in a regular manner. The micropylar chutes are 5 μm wide. Corresponding passages in the vitelline envelope are believed to close after fertilization. A standardized nomenclature for endophytic dragonfly eggs is proposed.

- (9758) *SELYSIA. Newsletter of the Societas Internationalis Odonatologica and of the U.S. National Office*. Vol. 23, No. 1 (May 31, 1994). — (c/o Drs M.J. Westfall & M.L. May, I.O.R.I., D.P.I., P.O. Box 147100, Gainesville, FL 32614-7100, USA).

Corbet, P.: Dr Tony Watson, 1935-1993 (p. 1); — *McMillan, V.*: XII international dragonfly symposium in Osaka, Japan (pp. 1-2); — *Inoue, K.*: "Dragonfly Kingdom" in Nakamura, Japan (p. 3); — *Jurzitza, G.*: A letter from Prof. Jurzitza (p. 4); — *Ubukata, H.*: International Symposium on the Conservation of Dragonflies and their Habitats held in Kushiro, Japan (pp. 4-6); — *Robertson, H.N.*: A report on odonatological research (pp. 6-7); — *Davies, A.*: Rare anisozygopteran sightings and Epiophlebia laidlawi, a living ghost (pp. 7-8); — *Andrew, R.J.*: The IV South Asian Symposium of Odonatology — a great success (p. 8); — *Westfall, M.J.*: An open letter from Dr Westfall (p. 9); — *Cook, C.*: ISCA: a new organization is formed (pp. 9-10); — 1972-1994 a tribute to Bastiaan Kiauta for his twenty-two-years service to Odonatologica as Editor (p. 10); — *Mauffray, B.*: Cordulegaster sayi habitat is spared (p. 11); — I.O.R.I.

store retail price list (p. 11); — "Curator", a great new Window oriented data base for collectors (p. 11); — (*Anonymous*), Obituary notices [Dr P.P. Cook, Mrs L.K. Gloyd, Dr C. Hamrum, O.R. Strub] (p. 12); — [*May, M.L.*], Editor needed for Selysia (p. 12); a call for a volunteer, preferably from North America; with no response, publication of the newsletter will have to be suspended); — *Silsby, J.*: Minutes of the Business Meeting of the Societas Internationalis Odonatologica (pp. 12-15).

- (9759) [STRUB, I.], 1994. *Libellen im Seepark. Vernissage 23. Juni 1994*. Filmstudio 2 S, Thun. 12 pp. — (Seestr. 26 J, CH-3601 Thun).

This is a collection of the addresses and texts spoken at the opening of the retrospective dragonfly photographs exhibit of Otto R. (deceased Dec. 4, 1993) and Irina E. Strub-Siegenthaler, Thun, Switzerland. Some photographs of the ceremony and the reproductions of 2 articles from the local dailies are also included. — **C o n t e n t s**: *Kiauta, B.*: Grussnote des S.I.O. (pp. 1-2); — *Grossniklaus, H.-P.*: Einführung: Fotograf-Object und die künstlerische Umsetzung ins Bild (pp. 3-5); — *Kägi, G.*: Einführung in die Tanka- und Haiku-texte (p. 6); — *Kiauta, M.*: Tanka für Vernissage (p. 7); — *Strub, J.*: Haiku für Vernissage (p. 8); — (*Anonymous*): 8 photographs from the opening ceremony (pp. 9-10); — *Hari, H.*: Libellenzauber im Thuner "Seepark" (p. 11; from: *Thuner Tagblatt* 1994 (146), issue of June 25); — *Kestenholz, G.*: Libellen — ein Hauch von Ewigkeit (p. 12; from: *Berner Oberländer* 1994 (146), issue of June 25). — For some of the Strub-Siegenthaler's dragonfly work cf. *OA* 1563, 1764 and *Odonatologica* 10(1981): 1-4.

- (9760) THORPE, J.P. & A.M. SOLÉ-CAVA, 1994. The use of allozyme electrophoresis in invertebrate systematics. *Zool. Scr.* 23(1): 3-18. — (First Author: Dept Environ. & Evol. Biol., Univ. Liverpool, Port Erin Marine Lab., Port Erin, Isle of Man, UK).

The role of enzyme electrophoresis is discussed as it applies to taxonomy and systematics, particularly of invertebrates. Details are given of methods for distinguishing and identifying cryptic or sibling species and the different approaches to sympatric and allopatric populations are reviewed. The calculation and uses of

genetic distance measures are outlined, as are the empirical relationship of such measures to different levels of taxonomic separation. Difficulties, drawbacks and limitations of the technique are explained together with the advantages. Evidence for molecular clocks is outlined briefly and their role in systematic studies is discussed, as are methods of analysing genetic divergence data for systematic purposes. References to studies covering a wide range of invertebrate taxa are tabulated. — (*Abstract's Note*: Amazingly, the paper does not contain a single reference to the odon. It is listed here because of its importance for the rapidly increasing odonotol. research in this field).

- (9761) UTSCHICK, H., 1994. Entwicklung der Libellenfauna durch Anlage und Management der Innstaustufe Perach 1975-1987. *NachrBl. bayer. Ent.* 43(1/2): 1-15. (With Engl.s.). — (Lehrstuhl Landnutzungsplanung & NatSchutz, Univ. München, Hohenbachernstr. 22, D-85354 Freising).

The shifts in a riverine odon. community on the Lower Inn R., Bavaria, Germany, due to reservoir construction and management are described. The community changes seriously after filling up a new river reservoir. During the construction period the former most abundant species preferring small ponds and sedge-reeds within old river loops, like *Sympetrum danae*, were complemented by gravel pit species. After filling up the reservoir a strong ground- and percolation waterflow passed the old, former mainly dry river loops and turned the small ponds and low reeds into cold creeks. This resulted in declined dragonfly densities, but 1 year later the community recreated, shifting toward ubiquitous species preferring richly vegetated, open ponds like *Coenagrion puella*, *Sympetrum vulgatum* and *Libellula quadrimaculata*. 10 years later the community showed much higher portions of zygopteran dragonflies. The density of anisopteran dragonflies fluctuated due to high water impact and fishermen activities. Dragonflies, typical for natural riverine waterhabitats, like the Calopteryx- or Onychogomphus-species, invaded the area only in small numbers till now. Nevertheless in a long way the regeneration of riverine landscapes may show more positive effects on the dragonfly community than

the creation of artificial ponds. Further important constraints of optimal riverine dragonfly habitats are open river forest sites with small ponds and warm, unshaded gravel roads or dams.

- (9762) VAN PELT, G.J., 1994. Further notes on Chinese Cordulegastridae (Insecta: Odonata: Anisoptera). *Zool. Meded.* 68(9): 87-96. — (Natn. Natuurh. Mus., P.O. Box 9517, NL-2300 RA Leiden).

Additional material of *Anotogaster cornutifrons* Lohmann is provided, *Neallogaster liefstincki* Lohmann, 1993 is synonymized with *Cordulegaster jinensis* Zhu & Han, 1992, and *Cordulegaster orientalis* sp.n. is described (♂ holotype: China, Shantung, Ch'ing-tao; deposited at RMNH, Leiden).

- (9763) VAN TOL, J., 1994. The Odonata of Sulawesi and adjacent islands. Part 3. The genus *Macromia* Rambur (Corduliidae). *Tijdschr. Ent.* 137(1): 87-94. — (Natn. Natuurh. Mus., P.O. Box 9517, NL-2300 RA Leiden).

The Sulawesi (=Celebes) *Macromia* spp. are detailed and keyed. *M. celebica* sp.n. (holotype ♂: Puncak Palopo, S central Celebes, alt. 600-1000 m, X-1993; RMNH) and the hitherto unknown ♀ of *M. irina* are described. The occurrence on Sulawesi of *M. moorei fumata* is considered doubtful. The phylogenetic relationships of the Indo-Australian *Macromia* spp. are analysed. These are shown to have a sister group relationship to the monophyletic group of the Papuan spp. *M. chalciope* from Halmahera is considered the most recently evolved taxon. These results are compared with recent reconstructions of the geological history of the region. — For pts 1 & 2 cf. *OA* 5957.

- (9764) VERILHAC, F. (author) / SELIŠKAR, A. (translator), 1994. *Tisoč naravnih bivališč*. — [*Mille lieux naturels*]. Tehniška založba Slovenije, Ljubljana. iv+54 pp. (most folded). — ISBN none. (Slovene).

This is a Slovene translation of the work, published originally (1991) by Editions Milan, Toulouse. It contains Slovene vernacular names for several odon. spp.

- (9765) VIARTEIX, P., 1994. Les libellules en Limousin. *Épops* 1994(1): 33-35. — (11 rue Jauvion,

F-87000 Limoges).

A checklist of 41 spp. hitherto reported from the departments of La Haute-Vienne, La Creuse and La Corrèze, France.

- (9766) [VICK, G.S.] (Anonymous), 1994. Germans over the top. *Daily Telegraph*, issue of June 4. — (c/o Dr G. Vick, "Crossfields", Little London, Basingstoke, Hants RG26 5ET, UK).

A national daily's note on G. Vick's talk on his odon. exploration in the Venezuelan mountains, presented at the BDS Indoor Meeting, on Nov. 20, 1993.

- (9767) VOITH, J., [Ed.], 1994. *Artenschutzkartierung Bayern. Arbeitsatlas Libellen*. Bayerisches Landesamt f. Umweltschutz, München. ii+92 pp. — (Author & Publ.: Bayerisches Landesamt für Umweltschutz, Referat 8/3 Artenschutz, Rosenkavalierplatz 10, D-81925 München).

Based on ca 50.000 records, from ca 8500 localities, the distribution of 73 spp. in Bavaria, Germany, is mapped.

- (9768) VUKIĆ, M., 1994. *Vretenca jezera Jarun. — [Dragonflies of lake Jarun]*. Diplomski rad (= M.Sc.thesis) Univ. Zagreb. iv+53 pp. (Croatian). — (c/o Dr M. Franković, Dept Anim. Physiol., Univ. Zagreb, Rooseveltov trg 6, CRO-41000 Zagreb).

A survey of the odon. fauna (19 spp.) of the lake, situated within the city area of Zagreb, Croatia.

- (9769) WEBER, G., 1994. Die Libellenfauna des Eskesberges. *Jber. naturw. Ver. Wuppertal* 47: 122-125. — (Hevener Str. 67, D-44797 Bochum). A commented list of 7 common spp. at a locality in the Wuppertal area, Germany.

- (9770) WEIDMANN, P. & G. ACKERMANN, 1994. *Libellenkartierung im Naturschutzgebiet "Siechenstuden" (Gemeinde Maienfeld)*. Bündner Naturschutzbund, Chur. iii+39 pp. — (First Author: Rössligasse 9, CH-8887 Mels).

27 spp. are listed from a wetland locality at Maienfeld, canton Grisons, Switzerland. Their ecology is briefly outlined, habitat quality is assessed, and some management measures are suggested. Of some local interest is the occurrence of *Crocothemis erythraea*, *Sympetrum*

fonscolombei and *S. depressiusculum*.

- (9771) WILDERMUTH, H., 1994. Populationsdynamik der Grossen Moosjungfer, *Leucorrhinia pectoralis* Charpentier, 1825 (Odonata, Libellulidae). *Z. Ökol. NatSchutz* 3(1): 25-39. (With Engl.s.). — (Langenrainstr. 5, CH-8340 Hinwil).

The population dynamics of *L. pectoralis* and that of the sympatric ubiquitous *Libellula quadrimaculata* and *Aeshna cyanea* were investigated in Switzerland for successive years, mainly on the basis of quantitative exuviae collecting, census of mature males present at water throughout the flying season and marking of teneralis. This long-term study made it possible to characterize the inter-year variability of the size of the emerging population, the temporal pattern of emergence and the duration of the reproduction period. The size of the population emerging from the study site varied from year to year by as much as a factor of 10, and within a single pond by as much as a factor of 100. Exuviae of *L. pectoralis* were only abundant at one pond when *A. cyanea* emerged in small numbers in the same year and vice versa. It is suggested that there is heavy predation on *L. pectoralis* by *A. cyanea* during the larval stage in summer and early autumn. After emergence only part of the population returns to the natal body of water for reproduction. The methodological and practical implications for nature conservation are discussed.

- (9772) WOOTTON, R., 1994. [Obituary]. Frank Morton Carpenter (1902-1994). *Antenna* 18(2): 56-58. — (Dept Biol., Univ. Exeter, Exeter, EX4 4PS, UK).

A brief biography and appreciation of work (born: Boston, MA, USA, Sept. 6, 1902; — deceased: *ibid.*, Jan. 18, 1994; — Fisher Professor of Natural History and Alexander Agassiz Professor of Zoology at Harvard, Hon. Fellow RES, etc., etc.). For another biographic paper on this great odon. palaeontologist cf. OA 9187.

- (9773) YANG, Z.-d. & S.-s. LI, 1994. A new species of the genus *Burmagomphus* from northern Szechuan (Odonata: Gomphidae). *Acta ent. sin.* 37(1): 84-86. (Chin., with Engl.s.). — (Dept Biol., Hanzhong Teachers' Coll., Hanzhong,

Shaanxi-723001, P.R. China).

B. bashanensis sp.n. is described, illustrated, and compared with *B. arboreus* Lieft. Holotype

data are not stated in Engl. text; types are deposited in Author's institution.