

ODONATOLOGICAL ABSTRACTS

1972

- (2754) MENON, M.G.R., 1972. Dragonflies immobilized by breakers on seashore. *Entomologists' Newsl.*, New Delhi 3 (7): 43-44. — (c/o Div. Ent., Indian Agric. Res. Inst., New Delhi-110012, India).

Large numbers of *Diplacodes nebulosa* and *D. trivialis* were observed (mostly alive when collected) stuck to the sands of the seashore along the Puri beach, Orissa, India. The 2 spp. are common in the area and are often found perching on the sand. It is presumed that they predate on small crustaceans washed on the shore by breakers. When they sit on the wet sand they are unable to take readily on wing, and as the billows break they get surrounded by the receding waters and ultimately get partly buried and immobilized under the rolling sand.

1973

- (2755) ELLIOT, W.R. & J.R. REDDELL, 1973. A checklist of the cave fauna of Mexico. VI. Valle de los Fantasmas region, San Luis Potosi. *Bull. Assoc. Mexican Cave Stud.* 5: 191-201. — (Dept. Biol., Texas Tech. Univ., Lubbock, Texas 79409, USA).

Larvae of *Argia* sp. are recorded from Cueva de la Puente and Sótano de San Francisco, and 1 larva of *Cordulegaster diadema* was collected from 19°C stagnant water of the first mentioned cave. (For some older references on the odon. records from caves cf. OA No. 357).

- (2756) EMAD, S., 1973. An introduction to the systematics and biology of Iranian Odonata. M.S.P.H. thesis. Tehran Univ., 162 pp. (Persian, with Engl. s.). — (*Author's address unknown*).

[Not available for abstracting; reference in the paper listed in OA No. 2821].

- (2757) PINHEY, E., 1973. Report by Dr. E.C.G. Pinhey on the lower insect groups and on caddis flies, butterflies, moths and ant lions. Dragonflies: (order-Odonata). [Rep.] Rhod. Schools Explor. Soc., Matabeleland Br. 23 (Bukwa), pp. 32, 34 (Appendix). — (*Natn. Mus., P.O. Box 240, Bulawayo, Zimbabwe-Rhodesia*).

11 spp. collected Apr.-May, 1973 at Bukwa, Zimbabwe (Rhodesia) (20° 30' 10" S, 30° 16' 45" N) are listed. *Chlorocypha consueta*, *Atoconeura biordinata* *chirinda* and *Notiothemis jonesi* are discussed in some detail, and it is concluded that the odon. fauna of the area in Apr.-May is inclined towards the East and North of Zimbabwe, thence into warmer areas N. of the Zambezi River. — (*Abstracter's Note*: This is the odon. chapter of the paper 1973c, as listed in Dr. Pinhey's bibliography in *Odonatologica* 5 [1976]: 105).

1974

- (2758) JUDD, W.W., 1974. Vignettes of nature in southern Ontario. 96 pp., Carlston Press, New York. — (Dept. Zool., Univ. Western Ontario, London, Ont., CA).

On pp. 19-21 there is a chapter, "An assemblage of dragonflies at Rondeau Park in September", a general narrative, mentioning *Anax junius* and *Trapezostigma lacerata*.

- (2759) MANDAL, B.K., A. HAKIM, S.P. ROY & DATTA MUNSHI, 1974. Aquatic insect fauna of Bhagalpur. Indian J. Zootomy 15 (2): 111-120. — (Dept. Zool., Burdwan Univ., Burdwan, W. Bengal, India).

A very primitive review and drawings are given of 17 aquatic insect spp. (5 orders) of Bhagalpur, India, incl. the larvae of "Archelestes sp." and "Hagenius sp." (= *Sieboldius nigricolor*?).

1975

- (2760) COMPTE SART, A., 1975. Notas sobre las formas paleárticas del género *Sympecma* Burm., 1839, y el verdadero status de la *Sympecma aragoniensis* Navás (insectos, odonatos). Volumen extraordinario del primer centenario de la Real Sociedad Española de Historia Natural (II), pp. 91-103. — (Inst. Espanol Ent., José Gutierrez Abascal 1, Madrid-6, Spain).

The palaearctic members of the genus *Sympecma* are critically revised and a list of infraspecific taxa is presented. The holotype of Navas's *S. aragoniensis* is re-examined and illustrated, and the sp. is synonymized with *S. fusca* (Vander L.).

- (2761) CONCI, C., 1975. Repertorio delle biografie e bibliografie degli scrittori e cultori italiani di entomologia. Mem. Soc. ent. ital. 48 (Vol. Cent.) 4: 817-1069. (With Engl. s.). — (Mus. Civ. Stor. Nat., Corso Venezia 55, I-20121 Milano).

Brief biographic data and (partly annotated) bibliographic references to biographic publications are given for approx. 2400 deceased Italian entomologists. For the Italian region the work is considerably more complete than that listed in OA No. 2172.

- (2762) EDA, S., 1975. Emergence of *Gomphus postocularis*. Insectarium, Tokyo 12 (5): 10; with a cover photograph by H. Ogawa.

(Jap., with Engl. translation of the title and fig. captions). — (Dept. Oral Pathol., Matsumoto Dental Coll., 1780 Gohara, Hirooka, Shiojiri-shi 399-07, JA).
An illustrated note.

- (2763) LENKO, K. & N. PAPAVERO, 1975. Insetos no folclore. [Insects in folklore]. 520 pp. Conselho Estadual de Artes e Ciências Humanas (Coleção folclore, No. 18), São Paulo. (Portuguese). — (First author deceased; address second author: Museu de Zoologia, Univ. São Paulo, C.P. 7172, São Paulo, SP, Brazil).

Chapter VI (pp. 105-112), under the title, "As senhoritas libelulas" ("Misses dragonflies"), deals with the folklore of dragonflies in Brazil, and is preceded by a "dragonfly" sonnet by Gustavo Teixeira. Apparently there are but few superstitions about dragonflies in Brazil. One of these, from Piracicaba (São Paulo), is stated. The chapter contains a very valuable (annotated and commented) list of 28 folk names from various parts of Brazil, a considerable number of which were collected in the field by the well-known Brazilian odonatologist Prof. Dr. A.B.M. Machado (Dep. Morf., Inst. Cienc. Biol., Univ. Fed. Minas Gerais, C.P. 2486, BR-30000 Belo Horizonte, M.G.), viz.: "Aguadera", "Aviãozinho", "Catarina", "Cavalinho-de-Judeu", "Cavalinho-de-São-Jorge", "Cavalo-do-cão", "Cavalo-de-Judeu", "Cabra-cega", "Calunga", "Cambito", "Chupeira", "Fura-olho", "Guigo", "Jacina", "Lava-bunda", "Lavadeira", "Lavandeira", "Olho-depeixe", "Papa-mosquito", "Papa-vento", "Pica-fogo", "Pito", "Pito-do-coisa-ruim", "Pito-do-demo", "Tangerina", "Zabumba", "Zig-zag", and "Zigue-zigue". The provenience of each name is stated and a bibliographic list is appended.

- (2764) YASUMATSU, K., T. WONGSIRI, S. NAVAVICHIT & C. TIRAWAT, 1975. Approaches toward an integrated control of rice pests. Part I: Survey of natural enemies of important rice pests in Thailand. Techn. Bull. Plant Prot. Serv., Thailand, No. 24: 1-21. — (Second author: Div. Ent. & Zool.,

Dept. Agric., Bangkok, Bangkok-9, Thailand).

Aciagrion occidentale, *Agriocnemis dabreui*, *A. pygmaea*, *Ceriagrion olivaceum* and *Ischnura senegalensis* are the most important zygopteran predators of rice pests in Thailand. (For a list of 33 odon. spp. recorded from the Thai rice fields cf. *OA* No. 1725).

1977

- (2765) BOILLOT, F., 1977. Observations d'Odonates peu communs en Franche-Comté. *Annls sci. Univ. Besançon*, (III) 14: 39-40. (With Engl. s.). — (*Lab. Ecol. Anim., Fac. Sci., La Bouloie, F-25030 Besançon Cédex*). *Somatochlora arctica*, *Orthetrum albistylum* and *Sympetrum pedemontanum* are listed for the Franche-Comté, France. *S. arctica* is here recorded from the (French) Jura for the first time.
- (2766) CONROY, J.C. & J.L. KUHN, 1977. New annotated records of Odonata from the province of Manitoba with notes on their parasitism by larvae of water mites. *Manitoba Entomol.* 11: 27-40. — (*Dept. Biol., Univ. Winnipeg, 515 Portage Ave, Winnipeg, Manitoba, R3B 2E9, CA*).
23 Zygoptera and 27 Anisoptera (incl. 2 spp.) are recorded. Among these, *Lestes forcipatus*, *L. rectangularis*, *Chromagrion conditum*, *Enallagma carunculatum*, *E. vernale*, *Ischnura posita*, *I. perparva*, *Aeshna i. interrupta*, *A. verticalis*, *Epitheca canis*, *Sympetrum rubicundulum* and *S. illotum* reported for the first time from Manitoba, Canada. 15 zygopteran and 8 anisopteran spp. were parasitized by water mite larvae, of which *Arrenurus major*, *A. americanus*, *A. marshallae* and *Limnochares americana* were the most frequently found parasites. The latter showed a marked preference for the thorax of the host (97.7%), while the other 3 spp. showed no site preference.
- (2767) SCHMIDT, G., 1977. Präparieren von Insekten und anderen Wirbellosen. Lehr-

meister Bücherei No. 1. 134 pp. Philler, Minden. — (Publishers' address: *Albrecht Philler Verlag, D-4950 Minden, GFR*).

The cabinet preservation of Odon. is dealt with on pp. 99-103.

- (2768) TERZANI, F., 1977. Gli odonati (le libellule). *Riv. ent.*, Bologna 2 (2): 12-13. — (*Mus. Zool. "La Specola", Univ. Firenze, Via Romana 17, I-50125 Firenze*).
A general note on dragonflies, with a photograph of larval "*Libellula doris*" from the Upper Miocene of the Colline del Monferrato (from coll. Russo).
- (2769) TERZANI, F., 1977. Una popolazione di *Aeschna juncea* L., 1758 al Laghetto dal Passo di Lavazè (Trento). *Riv. ent.*, Bologna 2 (6): 18-19. — (*Mus. Zool. "La Specola", Univ. Firenze, Via Romana 17, I-50125 Firenze*).
A population of *A. juncea* at the Long Lake (Lungo Laghetto) on the Passo di Lavazè, Trento, northern Italy (alt. 1800 m) is described and discussed, and some material collected at the nearby ponds Colbricon (alt. 1909 m) is brought on record.
- (2770) WISE, K.A.J., 1977. A synonymic checklist of the Hexapoda of the New Zealand sub-region. The smaller orders. *Bull. Auckland Inst. & Mus.* 11: IV + 176 pp. — (*Auckland Inst. & Mus., Private Bag, Auckland-1, NZ*).
The basic intention of the work is to provide a list of currently valid spp. with all the names used with reference to the New Zealand sub-region. The Odon. are dealt with on pp. 31-33.

1978

- (2771) BUCCIARELLI, I., 1978. Jurzitza, G., 1978 — *Unsere Libellen*. *Boll. Soc. ent. ital.* 110 (7/8): 150. (Italian). — (*Mus. Civ. Stor. Nat., Corso Venezia 55, I-20121 Milano*).
Book review of the volume listed in *OA* No. 2121.

- (2772) DÉVAI, G., I. DÉVAI & S. ROCHLITZ, 1978. Kísérlet a vízi szervezetek előfordulási sajátosságainak egzakt értékelésére. (Attempt for the exact evaluation of the occurrence characteristics of aquatic organisms). *Acta biol. debrecina* 15: 89-99. (Hung., with Engl. s.). — (*Dept. Zool. & Anthropol., L. Kossuth Univ., H-4010 Debrecen*).
The basic principles of a statistical method, the application of the contingency tables evaluated by χ^2 tests and application possibilities are discussed. Biotope ties of *Corulia aenea* are analysed, and computer processing adaptations are presented.
- (2773) FALCHETTI, E., 1978. Il comportamento riproduttivo degli odonati. In: A. Curcio, [Ed.], *Enciclopedia scientifica e tecnica*, Volume di aggiornamento, pp. 332-336, 2 col.pls. excl., Roma. — (*Ist. Zool., Univ. Roma, Città Universitaria, I-00100 Roma*).
This is a general encyclopedia account on odon. reproductive behaviour, without bibliographic references. 6 of the 8 original col. photographs (*Coenagrion lindenii*, *Lestes virens*, *Calopteryx haemorrhoidalis*, *C. splendens*, *Libellula depressa*, *Sympetrum flaveolum*) were contributed by C. Utzeri. — (*Abstracter's note*: No reprints are available; xerox copies available from Dr. C. Utzeri, address as above).
- (2774) GALLETTI, P.A., 1978. Nuovi reperti di *Lindenia tetraphylla* (v.d.L.) in Italia (Odonata Gomphidae). *Boll. Soc. ent. ital.* 110 (10): 223-224. (With Engl. s.). — (*Via Monte Generoso 2, I-20155 Milano*).
A review is given of the hitherto published records of *L. tetraphylla* in Italy, and 2 new localities are added to the list. The distribution of the sp. in Italy is discussed and some biometrical data are presented.
- (2775) KINJO, M., S. AZUMA & T. KOHAMA, 1978. Insects of the Forestry Experiment Station of University of the Ryukyus, (3) Odonata, Phasmida, Mantoda and Orthoptera. *Bull. Coll. Agric. Univ. Ryukyus* 25711-722. (Jap., with Engl.s.). — (Address third author: 95, *Samashita, Ginowan, Okinawa Pref., 901-22, JA*).
An annotated list is given of 27 odon. spp. known to occur in the area. The list also includes the 2 endemic spp. and the 4 endemic sspp. peculiar to the Ryukyus, Japan.
- (2776) KOHAMA, T., 1978. Diurnal activities and reproductive behavior of *Matrona basilaris japonica* Foerster (Odonata: Calopterygidae). *Biol. Mag. Okinawa* 1978 (16): 23-27. (Jap., with Engl. translation of the title). — (95, *Samashita, Ginowan, Okinawa Pref., 901-22, JA*).
This is the first paper on the behaviour of a member of the genus *Matrona*. The behavioural features are described, illustrated and briefly compared to those of the genus *Calopteryx*.
- (2777) KRICHEVSKIY, R.E., B.Ya. RYABKO & A.Yu. HARITONOV, 1978. Teoretiko-informacionny metod postroeniya opredelitel'nykh. [Theoretically-informative method of the organization of identification keys]. *Tezisy Dokl. 3. vesoyuz. Konf. biol. & med. Kibernetike, Moskva*, pp. 223-226. (Russian). — (*Inst. Mathematics, Siberian Sect. USSR Acad. Sci., Novosibirsk, USSR*).
The considerations are based on the analysis of a section of a key to the genera of Libellulidae.
- (2778) KUMAR, A., 1978. Field notes on the Odonata around a fresh water lake in western Himalayas. *J. Bombay nat. Hist. Soc.* 74(3): 506-510. — (*Northern Reg. Stn. Zool. Surv. India, 13 Subhash Rd., Dehra Dun-248001, U.P., India*).
Notes are given on habitat selection of 31 spp. inhabiting the perennial Renuka Lake and 2 adjacent streams, Parush Ram Tal, Sirmour Distr., Himachal Pradesh, India (alt. 650 m). Various observations on behaviour are also presented.
- (2779) LARSSON, S.G., 1978. Baltic Amber — a palaeobiological study. 192 pp., 12 pls excl. *Entomonograph Vol. 1, Scandinavian Science Press, Klampenborg*. Price:

- DK 160.—. — (*Author's address unknown*). This is a monograph on petrography, flora, fauna and paleoecology of Baltic Amber. Extensive bibliography and a catalogue of fossil material in the Copenhagen Zool. Mus. are also provided. The latter contains no odon. material. A brief chapter on the Order (pp. 82-83) is based on literature. (Cf. also *OA* No. 1185).
- (2780) MEAD, A.P., 1978. A rhabdocoele turbellarian predator on the aquatic stages of mosquitoes. *Ann. trop. Med. Parasitol.* 72 (6): 591-594. — (*Dept. Biol. Sci., Ahmadu Bello Univ., Zaria, Nigeria*).
Unidentified zygopteran and anisopteran larvae are mentioned as predators of a still undescribed rhabdocoele of the *Mesostoma lingua* group in Zaria, Nigeria.
- (2781) MERLASSINO, M.B. & J.A. SCHNACK, 1978. Estructura comunitaria y variacion estacional de la mesofauna de artrópodos en el pleuston de dos afluentes de la Laguna de Chascomús. (On the pleuston complex of two affluents of the Chascomús lagoon. Community structure and seasonal changes with reference to the Arthropoda mesofauna). *Revta Soc. ent. Argent.* 37 (1/4): 1-8. (Spanish, with Engl. s.). — (*Inst. Limnol., Univ. Nac. La Plata, Argentina*). The mesofauna related to the *Azolla filiculoides* association was studied (Mar-Oct, 1974). The community structure and the seasonal variations were evaluated using the diversity indices and a rank correlation method. The Odon. are considered, but specified to the suborder level only.
- (2782) ROWE, R.J., 1978. Some aspects of the behaviour of *Xanthocnemis zealandica* larvae. III+42 pp. M.Sc. thesis, Univ. Canterbury, Christchurch. — (*Dept. Zool., Univ. Canterbury, Christchurch-1, NZ*).
X. zealandica larvae act as "sit and wait" predators in the aquarium. They display stylised threat and combat behaviours and defend the stem or root on which they are perching from conspecifics. The distribution of larvae on stems shows a strong tendency towards only 1 individual per stem. Neither diel periodicities in selection of substrate nor a hierarchy of substrate preferences were discovered. Various behavioural patterns are described and discussed in detail.
- (2783) SADYRIN, V.M., 1978. Production of phytophilous invertebrates in the cooling reservoir of the Gorkovskaya State Regional Electric Power Plant. *Ekologiya* 1978 (5): 62-69. (Russian, with Eng. s.). — (*All-Union Res. Inst. Pond Fish., Rybnoye, USSR*).
Production of fauna was calculated with the aid of the value of daily specific production taken from the literature and determined experimentally at the cooling reservoir of the plant. The dynamics of the production processes and the number of predators in the reservoir were followed. Total production of fauna and pure production for the season 1973-1974 were calculated. Various invertebrate spp. were considered, incl. Odon.
- (2784) TERZANI, F., 1978. Gli odonati del Lago di Castel dell'Alpi, Appennino emiliano. *Boll. Soc. ent. ital.* 110 (4/6): 78-79. (With Engl. s.). — (*Mus. Zool. "La Specola", Univ. Firenze, Via Romana 17, I-50125 Firenze*). 12 spp. are listed for the lake Castel dell'Alpi, S. Benedetto, Val di Sombro, Bologna, Italy.

1979

- (2785) (Anonymous), 1979. [Dr. Rainer Rudolph]. *Münsterische Z.* 109 (178), 1 p. (issue of Aug. 1). (German). — (Publisher's address: *Verlag Münsterische Zeitung, Neubrückerstr. 8, D-44 Münster, GFR*).
A daily's interview with the well-known German odonatologist, Dr. R. Rudolph. A portrait is also provided. (Cf. also *OA* Nos. 2651, 2652).
- (2786) BARTH, E., [Ed.], 1979. Karl-Marx-Stadt, Ergebnisse der heimatkundlichen Bestandsaufnahme im Gebiet von Karl-Marx-Stadt. I-XII, 1-255 pp. Akademie-Verlag, Berlin.

- Price: M 12.50. — (Publishers' address: *Akademie-Verlag, Leipziger Str. 3-4, DDR-108 Berlin, GDR*).
- Lestes sponsa*, *Aeshna cyanea*, *A. grandis*, *Sympetrum danae* and *S. vulgatum* are mentioned for the "Indianerteich" pond, in the Karl-Marx-Stadt area, German Democratic Republic (p. 135).
- (2787) BUSSMANN, C., 1979. Ökologische Sondernung der Rohrsänger Südfrankreichs aufgrund von Nahrungsstudien. Vogelwarte 30: 84-101. (With Engl. s.). — (*Zweiterstr. 124, CH-8003 Zürich*).
- The feeding habits of 3 sympatric *Acrocephalus* warblers was studied (1976-1977) in the Camargue, France. The relative amount of food brought per hour is about equal in all 3 bird spp., however, *A. arundinaceus* specializes on relatively large prey, can hold but a few food items in its bill and has lower feeding frequency. *A. scirpaceus* and *A. melanopogon* feed on smaller prey, hold more prey specimens in their bills and have higher feeding frequency. Hence, the former sp. is an essential predator on Odon., while the latter 2 spp. are not. A list of prey spp. and their numbers is given per bird sp. From the latter it is evident that there is a significant difference in the prey collection sites of the 3 bird spp.
- (2788) CHARITONOV, A.Yu., 1979. Novy vid strekozy roda *Ischnura* Charp. (Odonata, Coenagrionidae) iz Yuzhnogo Kasakhstana. [A new species of the genus *Ischnura* Charp. (Odonata, Coenagrionidae) from the southern Kazakhstan]. Trudy vsesoyuz. Obshch. ent. 61: 5-7. (Russian). — (*Inst. Biol., Siberian Sect. USSR Acad. Sci., Ul. Frunze 11, USSR-630091 Novosibirsk*).
- I. aralensis* sp.n. (9 holotype: Karasevo Lake, Syrdar'inskiy Distr., Kzyl-Ordinskaya Prov., Kazakhstan, USSR; 8-VI-1976) is described and illustrated. The single specimen was encountered among 160 other *Ischnura* specimens from the lower Syrdarya Riv. region, and is deposited in the collections of the Inst. Biol., Novosibirsk. — (*Abstracter's note*: The usual Latin trans-
- literation of the author's name is "Haritonov", occasionally also "Kharitonov").
- (2789) CHELMICK, D.G., 1979. Provisional atlas of the insects of the British Isles. Part. 7. Odonata. Dragonflies. XII+46 pp. Biol. Records Cent., Huntingdon. — Price: £ 3.—. — (Author's address: "Bredon", *High Beech Lane, Haywards Heath, Sussex, UK*; — Publishers' address: *Biol. Rec. Cent., Monks Wood Expl Stn, Huntingdon, Cambs. PE17 2LS, UK*).
- This is a completely revised and essentially enlarged edition of the volume listed in OA No. 2361. Contrary to the first edition, the Channel Islands are included here. This brings the total British Isles list to 51 spp., comprising 38 breeding spp., 3 extinct spp. (*Coenagrion armatum*, *C. scitulum*, *Oxygastria curtisi*), and 10 vagrant spp. Distribution maps are presented for 44 spp., showing the records received up to Dec. 31, 1978. 40% of these were made after the publication of the first edition.
- (2790) COELHO, P.A., M.R. PORTO & L.M. SILVA, 1979. Entomofauna dos viveiros e tanques de cultivo de camarões de água doce. [Entomofauna of the nurseries and tanks for the rearing of fresh-water shrimps]. Ciencia e Cultura 31 (7): 693-694. (Portuguese). — (*Dep. Oceanogr., Univ. Fed. Pernambuco, Pernambuco, Brazil*).
- This is an abstract of a paper presented at the Annual Meeting of the Brazilian Association for the Advancement of Science. The insect fauna of shrimp nursery basins in the State of Pernambuco, Brazil, was surveyed, and reference is made to the odon. families Coenagrionidae, Lestidae, Calopterygidae, Gomphidae, Petaluridae [sic!], and Libellulidae. The species names are not mentioned. — (*Abstracter's note*: The reference to the occurrence of Petaluridae in Brazil is greatly peculiar).
- (2791) CORDULIA. Cahier d'amateurs. Published by the Collège Bourget, Rigaud, Quebec, Canada; edited by A. Larochelle, Collège Bourget. Vol. 5, No. 3 (Sept. 1979), No. 4

- (dec. 1979). (French and Engl., most larger papers with s's. in Engl.). — Annual subscription for 1979 (4 issues): Can.\$ 4.— (Canada, USA), Can.\$ 5.— (others). — (c/o A. Larochelle, Coll. Bourget, C.P. 1000, Rigaud, Que. J0P 1P0, CA).
(No. 3): no odonatol. contents.
(No. 4): *Larochelle, A.* (address cf. above): The life and work of Kiyoshi Inoue, a Japanese odonatologist (76-79); — Captures d'Odonates au Québec en 1979 (80-81); — *Lanthus parvulus* Selys (Odonata: Gomphidae): histoire naturelle selon la littérature (82-83); — *Hutchinson, R.* (Coll. Bourget, C.P.1000, Rigaud, Que. J0P 1P0, CA): A *Vespula* wasp (Hymenoptera: Vespidae) with a male *Enallagma boreale* Selys (Zygoptera: Coenagrionidae) in its mouth (84). — Contents table for vol. 5.
- (2792) COSTA, J.M., 1979. Contribuição ao estudo das formas larvárias do gênero *Oxyagrion* Selys, 1876, com a descrição de *Oxyagrion evanescens* Calvert, 1909 (Odonata-Coenagrionidae). (Contribution to the study of the larval forms of the *Oxyagrion* Selys, 1876, with the description of *Oxyagrion evanescens* Calvert, 1909 (Odonata-Coenagrionidae)). *Anais Soc. ent. Brasil* 8 (1): 163-166. (Portuguese, with Engl. s.). — (*Mus. Nac., Univ. Fed. Rio de Janeiro, Quinta da Boa Vista, BR-20.940 Rio de Janeiro*).
The ♀ ultimate stage larva of *O. evanescens* from the Tiradentes Mt., MG, Brazil, is described and illustrated.
- (2793) CROWLEY, P.H. & A.D. WILSON, 1979. New species records of damselflies (Odonata: Zygoptera) in Kentucky. *Trans. Kentucky Acad. Sci.* 40 (1/2): 52. — (*T.H. Morgan Sch. Biol. Sci., Univ. Kentucky, Lexington, Ky 40506, USA*).
Argia tibialis, *Enallagma traviatum*, *Ischnura ramburii* and *Lestes rectangularis* were collected in Fayette Co., Kentucky, USA. *E. traviatum* and *I. ramburii* are new state records.
- (2794) FITZGERALD, B.M. & B.J. KARL, 1979. Foods of feral house cats (*Felis catus* L.) in forest of the Orongorongo Valley, Wellington. *N.Z. J. Zool.* 6: 107-126. — (*Ecol. Div., Dept. Sci. & Ind. Res., Private Bag, Lower Hutt, NZ*).
Predation on *Uropetala carovei* is dealt with on p. 110 (mean weight of prey) and on pp. 116-118 (seasonality of predation). — (For cat predation on *Petaluridae* cf. also *OA* Nos. 2441, 2857).
- (2795) GORRE, J.A., 1979. Patterns of initial benthic recolonization of a reclaimed coal strip-mined river channel. *Can. J. Zool.* 57 (12): 2429-2439. (With Fr. s.). — (*Water Resources Res. Inst., Univ. Wyoming, P.O. Box 3067, University Station, Laramie, Wyo. 82071, USA*).
Benthic macroinvertebrate samples were taken at stations upstream and downstream of and within a newly opened channel (reclaimed from coal strip-mining) of the Tongue Riv., Wyoming, USA. Colonization occurred primarily by drift of aquatic insects and algal mats in the first 2 weeks of opening. Some upstream migration, particularly of *Ophiogomphus morrisoni*, was observed. Reference is also made to colonization by *Argia vivida*.
- (2796) GRIFFIN, G.F., 1979. Dragonfly (Odonata) records from central Australia. *Aust. ent. Mag.* 6 (4): 75-77. — (*19 Cummings Str., Alice Springs, N.T. 5750, AU*).
16 spp. are listed from the Northern Territory, south of latitude 21° south. Among these, *Austroagrion cyane*, *Ischnura heterosticta*, *Austrolestes annulosus*, *Austrogynacantha heterogena*, *Orthetrum migratum*, *Trapezostigma loewi* and *T. stenoloba* are new for central Australia.
- (2797) HAIRSTON, N.G., Jr., 1979. The adaptive significance of color polymorphism in two species of *Diaptomus* (Copepoda). *Limnol. Oceanogr.* 24 (1): 15-37. — (*Dept. Zool., Univ. R.I., Kingston, R.I. 02881, USA*).
In the Lower Grand Goulee, Washington, USA, *D. nevadensis* in Soap Lake contains larger amounts of the carotenoid asta-

xanthin than in Lake Lenore. During winter, *D. sicilis* contains more pigment in both lakes, but in summer individuals from Lake Lenore are much reduced in pigment, while those from Soap Lake are unchanged. The amount of astaxanthin might be a reflection of the amount of pigment in the copepods' diet or might reflect the relative importance of selective forces acting for and against pigmentation. Visually oriented predators, such as the larval Zygoptera from both lakes, selected red copepods. The hypothesis that the pigment differences are the result of natural selection is supported. Selective predation is implicated as the explanation for the small amount of pigment in Lake Lenore copepods.

- (2798) HEIDEMANN, H., 1979. Beobachtungen der Quelljungfer *Cordulegaster bidentatus* Selys (Odonata, Cordulegasteridae). *Articulata* 1 (14): 141-143. — (*Au in den Buchen* 66, D-7520 Bruchsal-5, GFR).

A breeding colony of *C. bidentatus* is reported from the Vordere Seebach, above Schönmünzach, Freudenstadt, Schwarzwald (Black Forest), alt. 800 m, German Federal Republic (1976-1979), and a 1968 observation of this sp. in the Schwäbische Alb is brought on record.

- (2799) HIRASHIMA, Y., K. ATZAWA, T. MIURA & T. WONGSIRI, 1979. Field studies on the biological control of leafhoppers and planthoppers (Hemiptera: Homoptera) injurious to rice plants in south-east Asia. Progress report for the year 1977. *Esakia* 1979 (13): 1-20, pl. 1 (col.). — (*Ent. Lab., Fac. Agric., Kyushu Univ., Fukuoka*, 812, JA).

The most injurious rice pests in Thailand are *Nephotettix virescens*, *N. nigropictus*, *Sogatella furcifera* and *Nilaparvata lugens*. Among the predators, the 5 zygopteran spp., listed by K. Yasumatsu et al. (1975; cf. *OA* No. 2764) are also mentioned. The paper also contains a list of some Thai insect names. In Thai, the dragonfly is called "*Malaeng Por*", "*Malaeng*" being the general term for "insect".

- (2800) JÄRVILEHTO, M., 1979. Receptor potentials in invertebrate visual cells. In: H. Autrum, [Ed.], *Handbook of sensory physiology*, Vol. 7, Pt. 6A, pp. 315-356. Springer, Berlin. — (*Dept. Physiol., Univ. Oulu, Kajaanintie 52A, SF-90220 Oulu-22, Finland*).

Insect photoreceptor cell axons do not generally produce spike trains, though occasionally by intra- and extracellular measurements some have been recorded (*Hemicordulia*; cf. *OA* No. 975). Receptor potentials of various insects evoked by bright flashes are sometimes characterized by a large spike or spikelike peak, superimposed on the rising phase of the slow potential (cf. *OA* Nos. 449, 1247). The initial spikelike component is destroyed by application of tetrodotoxin to the odon. ocellus (cf. *OA* No. 449), whereas the slow receptor potential is not affected. This implies that 2 separate processes are involved in generation of these components of the receptor response. The origin and the significance of the spike (sometimes there are 2 small additional spikes) are unknown. The spike is generated actively, but whether or not it carries information of the light stimulus is an open question. Recent studies on second-order neurons of the odon. ocellus show that this is improbable (cf. *OA* No. 449). After the spike is blocked by tetrodotoxin, the normal response to the light stimulus is still found in the postsynaptic cell. — Although there are only a few direct measurements of receptor interaction, morphologic studies are more numerous, e.g. in the *Aeshna* and *Anax* ocelli there are some interesting anatomic clues of a complex feedback system (cf. *OA* No. 450). In the odon. ocellus the reciprocal, feedback synapses onto the photoreceptor axons are made both by processes from adjacent receptor terminals and the dendrites of second-order terminals (cf. O. Trujillo-Cenóz, 1965, *J. ultrastruct. Res.* 13:1-33).

- (2801) JENSEN, A.L., 1979. Some protozoan and acarine parasites from New Zealand Odonata. *Mauri Ora* 7: 147-149. — (c/o K. Andersen, *Ludvig Jensensvej* 3, DK-3460

Birkerød).

Parasitism of New Zealand Odon. by a cephaline gregarine (possibly *Schistocephalus* sp.) and mites (incl. *Eylais waikawae* and *Arrenurus rotoensis*) is recorded. (Author).

- (2802) KESSEL, R.G. & L.R. GANION, 1979. Localization of horseradish peroxidase in the panoistic dragonfly ovary. *J. sub-microsc. Cytol.* 11 (3): 313-324. — (Dept. Zool., Univ. Iowa, Iowa City, Iowa 52242, USA).

Libellula pulchella ovarioles were exposed to variable concentrations of the exogenous protein horseradish peroxidase, for varying lengths of time under both in vitro and in vivo conditions. This marker was used to investigate the permeability of different parts of the ovariole to protein and to investigate the time and magnitude of protein transport into follicle cells and oocytes of different size along the length of the ovarioles. Inherent peroxidatic activity within the follicle envelope was also examined. The exogenous protein readily penetrates the ovarioles and is located in narrow intercellular channels between oogonia and young oocytes. Occasionally, the cytoplasm of young, interconnected oocytes exhibits peroxidatic activity. Peroxidase is abundant in the thick basal lamina surrounding the follicle cells and in the perivitelline spaces. Peroxidatic activity is infrequently encountered in the cytoplasm of squamous follicle cells. In cuboidal or columnar shaped follicle cells, peroxidase is contained within small intracellular vesicles and in larger, membrane-bound inclusions. Peroxidatic activity is frequently encountered within the cisternae of the rough-surfaced endoplasmic reticulum of follicle cells, and the possible significance of this finding is discussed in terms of follicle cell function. Vitellogenic oocytes incorporate large quantities of peroxidase by means of micropinocytosis. Stages in this process involving both spherical and tubular vesicles, as well as the accumulation and storage of peroxidase in the cortical ooplasm are illustrated. (Authors).

- (2803) KOHAMA, T., M. IWASAKI & T. YAMAMOTO, 1979. New record of *Hydrobasileus croceus* (Brauer) from Okinawa-Honto, the Ryukyus (Odonata: Libellulidae). *New Entomol.* 28 (2): 16-17. (Jap., with Engl. s.). (95, Samashita, Ginowan, Okinawa Pref., 901-22, JA).

The sp. has been previously recorded from the Iromote Island (the Ryukyus). Here 4 ♀ are brought on record (along with a photograph of a mounted specimen), taken at the Haneji River, Okinawa-Honto, Japan.

- (2804) KUSUNOKI, H. & K. KUWATA, 1979. Dragonflies of Ehime Prefecture. *Bull. Ehime pref. Mus.* 1979 (10): 1-34, 2 pls. & captions excl. (Japanese, with Engl. translation of the title). — (Second author: 397-1, Higushiishii-cho, Matsuyama, 790, JA). The fauna (79 spp.) of the Echime Pref., Japan, is described and discussed.

- (2805) LAUMOND, C., H. MAULÉON & A. KERMARREC, 1979. Données nouvelles sur le spectre d'hôtes et le parasitisme du Nématode entomophage *Neoaplectana carpocapsae*. *Entomophaga* 24 (1): 13-27. (With Engl. s.). (*Stn Rech. Nématodes, I.N.R.A., Antibes, France*).

Laboratory tests under controlled conditions were carried out in Antibes (France), Guadeloupe and Madagascar to investigate the host range of *N. carpocapsae* Weiser. 123 insect spp., incl. *Anax junius*; Guadeloupe) were tested. Results confirmed that the potential host range is very broad (incl. the dragonfly) in spite of some cases of resistance, mainly in Diptera.

- (2806) LAYNE, J.N., 1979. Natural features of the Lake Annie tract, Highlands County, Florida. II + 79 pp. *Archbold Biol. Stn, Lake Placid, Fla.* — (Author's & Publishers' address: *Archbold Biol. Stn, Route 2, Box 180, Lake Placid, Fla 33852, USA*). Appendix 5 (p. 61) is a list of 27 odon. spp. hitherto recorded from the Lake, south-central Florida, USA, and is entirely based on literature.

- (2807) LOTZING, K., J. MÜLLER & D. SPITZENBERG, 1979. Charakterisierung der Libellenfauna (Insecta, Odonata) der Westerwiese Unseburg (Kreis Stassfurt). Abh. Ber. Naturkd. Magdeburg 12 (2): 78-82. — (*Breitscheidstr. 19, DDR-Unseburg, GDR*). During 10 yrs the odon. fauna of a region nr. Unseburg, District Stassfurt, German Democratic Republic, was investigated. Among the 22 spp. breeding regularly in the area, *Lestes barbarus* and *Anax parthenope* are of considerable interest.
- (2808) MACIOLEK, J.A. & F.G. HOWARTH, 1979. *Megalagrion paludicola*, a new species of damselfly (Odonata: Zygoptera: Coenagrionidae) from Kauai. Pacific Insects 21 (2/3): 165-171. — (*Cooperative Fishery Res. Unit, Univ. Hawaii, Honolulu, Hawaii 96822, USA*).
The new endemic Hawaiian sp., *M. paludicola* sp.n. is described and illustrated both in adult and in larval stages (♂ holotype, ♀ allotype, in copula: low-growing *Metrosiderus* forest between Kanaele Bog and Wahiawa Stream, Kauai Island, Hawaii, alt. 610 m; 15-8-1977; in Bishop Mus.; numerous paratypes, larval skins and larvae). Adults are found in swampy, low-statured *Metrosiderus* rain forest (alt. 610-1200 m). The larvae occur in small obscure shaded pools within the swamp.
- (2809) MALZ, H. & H. SCHRÖDER, 1979. Fossile Libellen — biologisch betrachtet. Kleine Senckenberg-Reihe Nr. 9. 46 pp. Kramer, Frankfurt/Main. — Price: DM 5.—. — (Authors' address: *Forschungsinst. Naturmus. Senckenberg, Senckenberganlage 25, D-6000 Frankfurt/Main-1, GFR*).
This is an enlarged, book edition of the paper listed in OA No. 2430.
- (2810) MENZEL, R., 1979. Spectral sensitivity and colour vision in invertebrates. In: D. Autrum, [Ed.], *Handbook of sensory physiology*, Vol. 7, Pt. 6A, pp. 503-580. Springer, Berlin. — (*Inst. Tierphysiol., FB 23, Freie Univ. Berlin, Grünwaldstr. 34, D-1000 Berlin-41, West Berlin*).
- Insect colour receptors can be divided into 3 large groups: UV, blue and green (mean max. sensitivities around 350, 440, 510 nm resp.). The spectral sensitivities of receptors in larval eyes, adult compound eyes and ocelli of many insects, incl. Odon., are listed in the table. — Adult *Aeshna*, *Hemicordulia* and *Libellula* have all 3 types in their compound eyes. Their distribution and arrangement can differ appreciably in different regions. In the dorsal region, UV and blue cells are generally more frequent, sometimes the only receptor type present (*Aeshna*, *Anax*). Green receptors are more frequent in ventral (*Aeshna*) and frontal sections. There is the advantage of the dense packing of UV receptors in the dorsal eye region for an increased contrast sensitivity in front of a predominantly UV-blue-emitting background (sky) (cf. K. Hamdorf & M. Gogala, 1973, *J. comp. Physiol.* 86: 231-245). — The odon. ocelli show 2 distinct peaks: one in the green and one in the UV. — The odon. larvae have UV and blue receptors. — Rhabdomes built up by laterally fused or tiered rhabdomeres in a single light guiding structure (fused rhabdom) may contain different photopigments. — (*Abstract's note*: The table omits the many green receptors and the one red receptor reported in *Aeshna* larvae; cf. H. Autrum & G. Kolb, 1968, *Z. vergl. Physiol.* 60: 450-477). Cf. also OA Nos. 1247, 1720, 2492).
- (2811) MIELEWCZYK, S., 1979. B.F. Belyšev, A.Ju. Charitonov: *Opređelitel' strekoz po kryl'jam*. Biul. inf. Pol. Tow. ent. 1979 (22): 73-74. (Polish). — (*Dept. Agrobiol., Polish Acad. Sci., Świerczewskiego 19, PO-60-809 Poznań*).
Extensive book review of the volume listed in OA No. 1802.
- (2812) MIELEWCZYK, S., 1979. *Notulae Odonatologicae*. Biul. inf. Pol. Tow. ent. 1979 (22): 96-97. (Polish). — (*Dept. Agrobiol., Polish Acad. Sci., Świerczewskiego 19, PO-60-809 Poznań*).
General information on the periodical, with a brief characterization of the hitherto

published papers.

- (2813) MOUZE, M., 1979. Étude cytologique de la genèse ommatidienne chez la larve d'un odonate anisoptère. *Rev. can. Biol.* 38 (4): 227-248. (With Engl. s.). — (*Serv. Biol. anim., Univ. Sci. & Techn. Lille, B.P. 36, F-59 Ville-neuve d'Ascq*).

In larval *Aeshna cyanea* the successive steps in ommatidia formation are described at the ultrastructural level from the regular cephalic epiderm to the fully differentiated ommatidia. An important proliferation site has been observed, which is followed by various steps of gathering of the presumptive ommatidian cells: 8 retinian cells, then 4 cristallinian cells, the 2 primary pigmentary cells. By deepening and motions of the cells, each cluster thus formed will set its ommatidian structure. The secondary pigmentary cells seem to correspond with the numerous cells intercalated between the ommatidian anlagen and do not show any tendency to gather around them. (Author).

- (2814) NOTULAE ODONATOLOGICAE. Semi-annual Bulletin of the International Odonatological Society. Published by the Societas Internationalis Odonatologica (S.I.O.), Utrecht. Vol. 1, No. 4 (Dec. 1, 1979). — Annual subscription Hfl. 20. — net. — (c/o Dr. B. Kiauta, Dept. Anim. Cytogen. & Cytotaxon., Univ. Utrecht, Padualaan 8, Utrecht, NL).
- Balestrazzi, E. & I. Bucciarelli* (Via Lanfranco 26, I-27100 Pavia): *Ophiogomphus serpentinus* (Charpentier) in un'associazione odonatologica della Lomellina Pavese, Lombardia, Italia (Anisoptera: Gomphidae) (54-59); — *Mielewczyk, S.* (Dept. Agrobiol., Polish Acad. Sci., Swierczewskiego 19, PO-60-809 Poznań): Ein neuer Fundort von *Orthetrum brunneum* (Fonscolombe) und die Verbreitung der Art in Polen (Anisoptera: Libellulidae) (59-61); — *Stark, W.* (Burgenländisches Landesmus., Museumgasse 5, A-7000 Eisenstadt): Mischformen von *Pyrrhosoma n. nymphula* (Sulzer, 1776) und *P. n. elisabethae* Schmidt, 1948 aus der Steiermark, Oesterreich (Zygoptera:

Coenagrionidae) (61-62); — *Tennessee, K.J.* (1949 Hickory Ave., Florence, Ala. 35630, USA): Distance traveled by transforming nymphs of *Tetragoneuria* at Marion County Lake, Alabama, United States (Anisoptera: Corduliidae) (63-65); — *Titayavan, M.* (Dept. Ent., Fac. Agric., Chiang Mai Univ., Chiang Mai, Thailand): A note on the Odonata of the Chiang Mai Valley, northern Thailand (65-67); — *White, H.B., III* (Dept. Chem., Univ. Delaware, Newark, Delaware 19711, USA): The Odonata of the Blue Hills, Norfolk County, Massachusetts, United States (67-69); — *Winstanley, W.J.* (Dept. Zool. Victoria Univ., Wellington, NZ): Rapid over-winter development in *Austrolestes colenisonis* (White) (Zygoptera: Lestidae) and *Aeshna brevistyla* Rambur (Anisoptera: Aeshnidae) at Pukepuke, New Zealand (69-71); — *Belle, J.* (Onder de Beumkes 35, 6883 HC Velp, NL): Dragonflies collected in southern Spain in March (71); — Notes on female of *Desmogomphus paucinervis* (Sel.) from Panama (Anisoptera: Gomphidae) (71-72); — *Clark, W.H.* (Mus. Nat. Hist., Coll. Idaho, Caldwell, Idaho 83605, USA): *Neurocordulia xanthosoma* (Wllmsn) from New Mexico, a significant range extension (Anisoptera: Corduliidae) (71); — *Greven, H.* (†): A note on the behaviour of larval *Cordulegaster boltoni* (Don.) in captivity (Anisoptera: Cordulegasteridae) (72-73); — *Kiauta, B. & M.A.J.E. Kiauta* (Dept. Anim. Cytogen. & Cytotaxon., Univ. Utrecht, Padualaan 8, Utrecht, NL): The karyotype of *Libellula fulva* Müll. from Switzerland (Anisoptera: Libellulidae) (73-74); — *Lohmann, H.* (Untere Dorfstr. 16, D-7888 Rheinfelden, GFR): *Hemianax ephippiger* (Burm.) in southwestern Germany and in Corsica (Anisoptera: Aeshnidae) (74); — *Orthetrum albistylum* (Sel.) near Belfort, France (Anisoptera: Libellulidae) (74-75); — *Longfield, C.* (Park House, Cloyne, Co. Cork, Eire): A note on the Odonata of the Channel Islands, United Kingdom (75); — *White, H.B., III* (address cf. above): Notable instances of avoidance behavior in Odonata (75-76); — *White, T.R. & R. Fox* (Dept. Ent. & Econ.

- Zool., Clemson Univ., Clemson, S.C. 29631, USA): Chironomid (Diptera) larvae and hydroptilid (Trichoptera) pupae attached to a macromiid nymph (Anisoptera) (76-77); — *White, T.R., R.C. Fox & J.A. Jordan* (address cf. above): Dragonfly predation by bats (77); — *Yadav, J.S.* (Dept. Zool., Kurukshetra Univ., Kurukshetra-132119, India): A note on the karyotypic variability in *Crocothemis erythraea* (Brullé) and *C. servilia* (Drury) (Anisoptera: Libellulidae) (77-79); — *Geijskes, D.C. & J. van Tol* (Rijksmus. Nat. Hist. Raamsteeg 2, Leiden, NL): Progress in analysing the Netherlands odonate faunistic records within the framework of the European Invertebrate Survey (79-80); — *Schmidt, E.* (Biol. Seminar, P.H., Römerstr. 164, D-5300 Bonn, GFR): Die Odonaten der Rheinaue bei Burkheim, Kaiserstuhl, Bundesrepublik Deutschland (80); — Zur Verbreitung von *Aeshna subarctica* Walker und *Somatochlora alpestris* (Sel.) in der Bundesrepublik Deutschland (Anisoptera: Aeshnidae, Corduliidae) (80-81); — *Scholten, W.J.* (Dijkgraaf 4-bg A, Wageningen, NL): Observations on *Libellula fulva* Müll. in the central Netherlands (81); — *Verdonk, M.* (Floralialaan 47, Bussum, NL): Comparison of the habitat and population structure of *Ischnura elegans* (Vander L.) and *I. pumilio* (Charp.) in a central Netherlands locality (Zygoptera: Coenagrionidae) (81); — *Wasscher, M.T.* (Ina-Boudier-Bakkerlaan 117/II, Utrecht, NL): The odonate fauna of the surroundings of Eindhoven, southeastern Netherlands (81-83); — *O'Farrell, A.F.* (Dept. Zool., Univ. New England, Armidale, N.S.W. 2351, AU): Book review: Tasmanian Odonata, by Piers Allbrook (83-84).
- (2815) **PETERS, G.**, 1979. Daten zum Geschlechterverhältnis mitteleuropäischer Aeshniden-Populationen (Insecta: Odonata). Dt. ent. Z. (N.F.) 26 (4/5): 229-239. (With Engl. s.) — (*Mus. Naturk., Humboldt Univ., Invalidenstr. 43, DDR-104 Berlin, GDR*).
The $\sigma:\varphi$ ratios were examined in over 3000 exuviae of *Anax imperator*, *parthenope* and *longipes*, and in *Aeshna cyanea*, *viridis*, *grandis*, *junceae* and *subarctica*. In the 3 *Anax* spp. the number of $\sigma\sigma$ seems larger than that of $\varphi\varphi$, whereas in *A. cyanea*, *viridis* and *subarctica* the 1:1 ratio is the rule. This is not the case in *A. grandis* and in at least 1 population of *A. junceae*, where only 30-35% of individuals are $\sigma\sigma$. The possible reasons of this situation are discussed, and it is suggested that the [secondary] neo-XY sex determination encountered [at least] in *A. grandis* could be responsible for this phenomenon.
- (2816) **ROWE, R.J.**, 1979. A method for marking aquatic insect larvae. *Mauri Ora* 7: 143-145. — (*Dept. Zool., Univ. Canterbury, Christchurch-1, NZ*).
A marking method is described that uses a coloured plastic ring composed of "perspex" (methyl methacrylate) and coloured fluorescent powder, and which is formed by precipitation around a leg segment of an aquatic insect. The mark is long-lasting (up to 3 months, the ring remains on the exuviae and the next instar is unmarked) and is especially suitable for fragile aquatic larvae. The method has been successfully used to mark either the femur or the tibia of the final 3 instars of the zygopterans *Xantho-nemis zealandica* and *Austrolestes colen-sonis*, and a variety of instars of the corduliide *Procordulia smithii*.
- (2817) **SANTOS, N.D. dos**, 1979. Descrição de *Leptagrion bocainense* Santos, 1978 cenagrionídeo bromelícola (Odonata: Coenagrionidae). (Description of *Leptagrion bocainense* Santos, 1978 a bromeliad coenagrionid (Odonata: Coenagrionidae)). *Anais Soc. ent. Brasil* 8 (1): 167-173. (Portuguese, with Engl. s.). — (*Mus. Nac., Univ. Fed. Rio de Janeiro, Quinta da Boa Vista BR-20.940 Rio de Janeiro*).
Description and figures are provided of *L. bocainense*, a sp. mentioned (as *nomen nudum*) in the paper listed in *OA* No. 2313. It is argued that the karyotypic similarities encountered in *Leptagrion* and (some) *Mecistogaster* spp. (Megapodagrionidae) may point to a certain phylogenetic interrela-

- tionship between these taxa breeding in bromelias (cf. B. Kiauta, 1972, *Odonatologica* 1: 31-35).
- (2818) SPÄH, H. & A. GERHARDT, 1979. Limnologische und saprobiologische Untersuchungen der Elbe und einiger ihrer Nebenbäche. *Ber. naturwiss. Ver. Bielefeld* 24: 411-456. — (*Univ. Bielefeld, Universitätsstr., D-48 Bielefeld, GFR*).
Platycnemis pennipes, *Coenagrion puella*, *Ischnura elegans*, *Lestes* sp., *Calopteryx splendens*, *C. virgo* and *Aeshna* sp. are reported from the Elbe R. nr. Bielefeld, Westfalia, German Federal Republic.
- (2819) STAVENGA, D.G., 1979. Pseudopupils in compound eyes. In: H. Autrum, [Ed.], *Handbook of sensory physiology*, Vol. 7, Pt. 6A, pp. 357-439. Springer, Berlin. — (*Dept. Biophysics, Univ. Groningen, Westersingel 34, Groningen, NL*).
 3 ways in which a dragonfly can have a fovea and 3 strategies for extending the visual field are described. There are discussions of binocular overlap, the mechanisms of prey capture, interommatidial angles in larval and adult Odon., the function of fused rhabdoms, and of the relationship between the colours of the primary pigment cells and the colour receptors in the dorsal and ventral regions of the eyes of adult Odon. The 271 references cover the literature on odon. pseudopupils, starting with the classical paper of Exner (1891). (Cf. also *OA* Nos. 1720, 1893, 1929, 2023, 2024, 2133, 2310).
- (2820) TEMBHARE, D.B., 1979. Hormonal regulation of osmotic and ionic balance in the haemolymph of the larvae of dragonfly, *Aeschna cyanea* (Müller) (Odonata: Aeschnidae). *Arch. internat. Physiol. Bioch.* 87 (3): 557-563. — (*P.-G. Dept. Zool., Nagpur Univ., University Campus, Nagpur-440010, India*).
 Evidence is provided of an active involvement of the neurosecretory A cells of the thoracic ganglia in the internal hypo- and hyperosmotic regulation in the larvae of *Aeshna cyanea*.
- (2821) TIRGARI, S., 1979. A key to the Iranian families of Odonata. *J. ent. Soc. Iran* 5 (1/2): 33-34 (Engl. s.), 65-69 (Persian text) 70-71 (figs., with Engl. captions). — (*Dept. Environmental Health School of Public Health, Univ. Tehran, P.O. Box 1310, Tehran, Iran*).
 A key is given to the Iranian odon. families, based on examination of odon. material kept in various Iranian universities, and collected in the past 2 decades. (For another recent Iranian work cf. *OA* No. 2756).
- (2822) TYAGI, B.K. & V. VEER, 1979. A note on some entomogenous fungi attacking preserved dragonfly collections. *J. Bombay nat. Hist. Soc.* 75 (3): 946-947. — (*Dept. Zool., D.A.V. Coll., Dehra Dun-248001, U.P., India*).
 6 spp. of fungi, pertaining to the genera *Entomophthora*, *Mucor*, *Spicaria* and *Tarichium*, were obtained from 100 specimens of 2 zygopteran and 2 anisopteran spp. It is interesting that no 2 different fungi spp. have ever been found on one and the same collection specimen. Methods are suggested for coping with the fungal growth on dry preserved material in collection cabinets under Indian conditions.
- (2823) UBUKATA, H., 1979. Behavior of *Somatochlora viridiaenea viridiaenea* Uhler in Kushiro District (Odonata, Corduliidae). *New Entomol.* 28 (1): 1-7 (With Jap. s.). — (*Kushiro Coll., Hokkaido Univ., Shiro-yama, Kushiro, 085, JA*).
 Various aspects of behaviour (incl. feeding, mating and oviposition) are described and compared with the observations on this spp. and on *S. v. atrovirens* in central Hokkaido, Japan. No significant behavioural differences were found between the 2 taxa.
- (2824) UBUKATA, H. & K. KITAGAWA, 1979. Methods in the field study of dragonflies. 1. Key to the species of Zygoptera in Hokkaido, with notes on the preparation of specimens. *Seibutsu Kyôzai, Hokkaido Univ.* 14: 50-70. (Jap., with Engl. translation of the title). — (*Kushiro Coll.,*

Hokkaido Univ., Shiroyama, Kushiro, 085, JA).

An identification key to the Zygoptera of Hokkaido, Japan, is presented along with some suggestions on the techniques of collecting, colour preservation, mounting, etc. (Authors).

- (2825) WELLINGHORST, R. & W. MEYER, 1979. Einige Beobachtungen zur Biologie von *Ichnura pumilio* (Charp.) und *Libellula depressa* L. (Odonata). Dt. ent. Z. (N.F.) 26 (4/5): 271-274, pls. 11-12. (With Engl. s.). — (Second author: *Inst. Zool., Tierärztliche Hochschule Hannover, Bischofsholer Damm 15, D-3000 Hannover-I, GFR*).

Notes are given on the habitat, larval stage, pairing and on the oviposition of *I. pumilio*, and on the larval biology of *L. depressa*. The distinctive structural features of the larvae of *L. depressa* and *L. quadrimaculata* are also outlined and illustrated. The paper is based on material from the Osnabrück District, German Federal Republic.

- (2826) WINSTANLEY, W.J., 1979. New Zealand's bush dragonfly. *Forest & Bird* 13 (4): 16-20. — (*Zool. Dept., Victoria Univ. of Wellington, Private Bag, Wellington, NZ*).

A popular account is given of the history, adult habits and habitat, early stages and the distribution (map) of the New Zealand endemic corduliid *Antipodochlora braueri* (incl. colour photographs of the adult and exuviae), and a plea is made for the conservation of its indigenous forest habitat.

- (2827) ZIMMERMANN, W., 1979. Thüringer Wald. *Abh. Ber. Mus. Natur Gotha* 9: 1-94. — (*Mus. Natur. Parkallee 15, DDR-58 Gotha, GDR*).

On p. 30, *Aeshna juncea*, *Somatochlora alpestris* and *Leucorrhinia dubia* are mentioned from the Thuringian Forest, German Democratic Republic.

- (2828) ZÜHLKE, D., [Ed.], 1979. Elbtal und Lösshügelland bei Meissen. *Ergebnisse der heimatkundlichen Bestandsaufnahme in den Gebieten von Hirschstein und Meissen. XII*

+ 244 pp. Akademie-Verlag, Berlin. — (Publishers' address: *Akademie-Verlag, Leipzigerstr. 3-4, DDR-108 Berlin, GDR*).

On p. 67, *Ophiogomphus serpentinus* is mentioned from the Bohntal nr. Meissen, German Democratic Republic.

1980

- (2829) (Anonymous), 1980. Libellen-Farb-Posters im Schloss Arbon. *Zweieinhalbmillionen Augen. Bodensee TgBl.*, issue of Febr. 7, 1 p. Local daily's article on the traveling exhibit of dragonfly photographs, as described in *OA* No. 2686. The exhibit was set up in the castle of Arbon, Switzerland, during Febr. 8-March 3, 1980. (Cf. also *OA* No. 2830).

- (2830) (Anonymous), 1980. Zur Fotoausstellung "Das Libellenjahr". *Schweiz. Bodensee Z.*, issue of Febr. 8, 1 p. Local daily's note on the same exhibit as mentioned in *OA* No. 2829.

- (2831) ALTMÜLLER, R., 1980. Erfassung von Tierarten in Niedersachsen — Libellen-Heuschrecken-Tagfalter, erster Zwischenbericht 1979, 5 pp. + 76 unnumbered pp. with maps. *Niedersächsische Landesverwaltung, Hannover. — (Abt. Naturschutz, Niedersächs. Landesverwaltungsamt, Postfach 107, D-3000 Hannover-I, GFR)*.

Distributional maps of 47 odon. spp. are presented along with those of Saltatoria and Rhopalocera (Lepid.), covering the states of Lower Saxony and Bremen, German Federal Republic. No comments or annotations are added. — (*Abstracter's notes*: The publication date is not indicated; the booklet was distributed by the governmental authorities in March 1980. It is unfortunate that the maps are not prepared in accordance with the grid system adopted by the European Invertebrate Survey scheme).

- (2832) ANDRIES, J.C., P. PORCHERON & F. DRAY, 1980. Haemolymph ecdysteroids level following the injection of ecdysone

or ecdysterone; its relation with tegument and midgut response in *Aeshna cyanea* (Insecta, Odonata). *Experientia* 36 (4): 468-470. — (*Lab. Biol. anim., Univ. Sci. & Techn. Lille I, F-59655 Villeneuve d'Ascq*). The haemolymph ecdysteroid level after injection of ecdysone or ecdysterone in *A. cyanea* larvae has been determined by a radioimmunoassay method. The rate of excretion appears to be dependent on both the ecdysteroid injected and the time of injection. In case of ecdysone injection, the secretion of the epidermal cuticle and the differentiation of the imaginal midgut epithelium occur when the ecdysteroid level remains low for many days. (Authors).

- (2833) BASSEMIR, U. & K. HANSEN, 1980. Single-pore sensilla of damselfly-larvae: representatives of phylogenetically old contact chemoreceptors? *Cell Tissue Res.* 207 (2): 307-320. (With Germ. s.). — (Reprint requests to second author: *Zool. Inst., Univ. Regensburg, D-8400 Regensburg, GFR*). The 4 single-pore sensilla on the maxillary palp of *Coenagrion puella* and *Ischnura elegans* possess 2 bipolar sensory cells for A-sensilla and 5 for B-sensilla. Distally, their dendrites are enclosed by a dendritic sheath and a pore tube. The dendritic tips have access to the outside via the opening of the pore tube. The inner dendritic segments join the receptor cell bodies laterally. The receptor cells of each sensillum are enveloped by 3 sheath cells and 3 receptor lymph cavities. Receptor lymph cavity 1 and 3 are connected with the outside by the pore tube and a minute canal system in the cuticle, respectively. All 3 sheath cells show microvillus-like processes of the apical membrane. Moreover, all sheath cells contain 2 centrioles in tandem arrangement. The structure of the single-pore sensilla is compared with that of similar sensilla of other arthropods. Functional and phylogenetic aspects are discussed. (Authors).

- (2834) BELYSHEV, B.F. & A.Yu. HARITONOV, 1980. O pozdnykh faunisticheskikh svyazyah etiopskoy i avstraliyskoy oblastey na pri-

mere strekoz (Odonata). (On the latest faunistic contacts of Ethiopian and Australian regions in Odonata). *Ent. Obozr.* 59 (1): 89-91. (Russian, with Eng. s.). — (*Inst. Biol., Siberian Sect. USSR Acad. Sci., Ul. Frunse 11, USSR-630091 Novosibirsk*). It is argued that the Australian *Aeshna* stock originates in Neogene hurricane transfer of dragonflies from southern Africa.

- (2835) BERGMANN, E.C., N.T. de MENDONÇA, Z.A. RAMIRO, M.P. COTTAS & E. AMANTE, 1980. Levantamentos da entomofauna das pastagens em diversos municípios do Estado de São Paulo. [Survey of the entomofauna of pasturelands in several municipalities of the State of São Paulo]. *Resumos VI Congr. Brasil. Ent., São Paulo*, p. 128. (Portuguese). — (*Authors' address unknown*). The survey has been carried out in 6 municipalities, and yielded close to 112,000 specimens of insects and arachnids. The Odon. were also covered, but a list of spp. is not given.
- (2836) BINKOWSKI, R., 1980. Libellenfauna der Nette. *Osnabrück. naturw. Mitt.* 7: 201-205. — (*Lindenstr. 32, D-4502 Georgsmarienhütte-Holzhausen, GFR*). An annotated list is given of 10 spp. collected 1976-1977 from the Nette R. nr. Osnabrück, Lower Saxony, German Federal Republic.
- (2837) BUENO, A.M.S. & A. FERREIRA, 1980. Estudos cromossômicos de 4 espécies de Odonata (libélulas). [Chromosome studies in 4 odonate species (dragonflies)]. *Resumos VI Congr. Brasil. Ent., São Paulo*, pp. 258-259. (Portuguese). — (Address second author: *Dept. Biol., Inst. Biocienc., Univ. Estadual Paulista, Rua 10 n. 2527, Caixa Postal 178, CEP 13.500, Rio Claro, Estado de São Paulo, Brazil*). The male chromosome complements are described of the following 4 spp.: *Oxyagrion evanescens* (Boraceia; $n=14$), *Staurophlebia r. reticulata* (Rio Claro; $2n=27$, $n=14$; m), *Micrathyrta hypodidyma* (Rio Claro; $n=12$; m ; XO), and *Trapezostigma cophysa*

- (Boraceia; $2n=23$, $n=12$; XO). In material of the latter sp. from Bolivia the complement $n=13$, m , has been previously recorded.
- (2838) CLAUSNITZER, H.-J. & K. STRASBURGER, 1980. Vorkommen und Gefährdung der Grünen Mosaikjungfer (*Aeshna viridis* Eversm.) im Allertal (Libellen, Odonata). Beitr. Naturk. Niedersachsens 33: 13-16. — (*Südsir. 6, D-3106 Eschede, GFR*). *A. viridis* is reported from 4 backwaters of the Aller R. nr. Celle, Lower Saxony, German Federal Republic. A brief outline of the water chemism of these habitats is presented.
- (2839) COSTA, J. M., 1980. Descrição da exúvia de *Oxyagrion impunctatum* Calvert, 1909 (Odo., Coenagrionidae). [Description of the exuviae of *Oxyagrion impunctatum* Calvert, 1909 (Odo., Coenagrionidae)]. Resumos VI Congr. Brasil. Ent., São Paulo, pp. 336-337. (Portuguese). — (*Mus. Nac., Univ. Fed. Rio de Janeiro, Quinta da Boa Vista, Guanabara-ZC-08, Rio de Janeiro, Brazil*). The male exuviae from Serra dos Lenheiros, MG, Brazil, is described.
- (2840) DONATH, H., 1980. Neue Funde von *Ischnura pumilio* (Charp.) in der südlichen Mark (Odonata). Novius, Berl. 2: 20. — (*Jahnstr. 6, DDR-796 Luckau, GDR*). A review is given of the hitherto known records of *I. pumilio* in Brandenburg, German Democratic Republic, and 9 new localities from the same region are added.
- (2841) GRACILE (Newsletter of Odonatology). Published by the Kansai Research Group of Odonatology, Osaka, No. 27 (March, 1980). (Jap., with Engl. translation of the titles). — (c/o K. Tani, 129 Jizochō, Nara, 630, JA). Tsuda, S. (Habikigaoka 7-17-9, Habikino, Osaka Pref., 583, JA): Notes on the names of some Japanese dragonflies, 2 (1-4); — Two new localities of *Anisogomphus maacki* (5); — Muraki, A. (17-27, Takadono 4-chome, Asahi-ku, Osaka, 535, JA): *Ictinogomphus pertinax* found at Kada, Wakayama Pref. (6-7); — Ohana, S. & K. Inoue (Kinryo-cho 3-4-10, Sakai, Osaka Pref., 590, JA): Breeding of the larvae taken at Ishigaki Island in spring, 1979 (8-9); — Terado, Y. (1053, Kanno-cho, Kakogawa, Hyogo Pref., 675, JA): Ecological observations on *Sympetrum uniforme* (9-11); — Takeuchi, T. (17-21, Kohro-en, Settsu, Osaka Pref., 564, JA): Let's carry out a survey on the ratios of the homeochromic females of *Ischnura senegalensis*! (11-13); — Inoue, K. (5-9, Fuminosato 4-chome, Abeno-ku, Osaka, 545, JA): Literatures on odonatology, 2 (14).
- (2842) JURZITZA, G., 1980. Ergänzungen zu: "Neue Sammeltechniken, mit besonderer Berücksichtigung des Lichtfangs" von Fritz Weber. Ent. Z., Frankfurt/M. 90 (9): 103-104. — (*Bot. Inst., Univ. Karlsruhe, Kaiserstr. 12, D-7500 Karlsruhe, GFR*). In his comments on the paper by F. Weber, in the same journal (1980, 90: 57-67), for dragonfly collecting the author is recommending the use of a black-colour net, and for the treatment of "fat" cabinet specimens the application of chloroform or carbon tetrachloride rather than that of petrol, benzol, toluol or xylol.
- (2843) LAWTON, J. H., B. A. THOMPSON & D. J. THOMPSON, 1980. The effects of prey density on survival and growth of damselfly larvae. Ecol. Ent. 5: 39-51. — (Correspondence to Dr. D. J. Thompson, Dept. Zool., Univ. Liverpool, P.O. Box 147, Liverpool, L69 3BX, UK). Instar 10, 11 and 12 *Ischnura* larvae were maintained throughout the instar on a constant food supply (*Daphnia magna* of a standard size). — A very narrow range of prey availability separated cohorts in which all the larvae successfully moulted to the next instar, from those in which all the larvae died (less than one *Daphnia* per day in the case of instar 10). — Larvae were able to survive long periods without food at 16°C. — Prey availability had a marked effect on development rates, which continued to increase at prey densities well in excess of

100% survival by the larvae. — The data on *Ischnura* survival and development rates are compared with previously published general models of these two components of the predators' rate of increase. — We conclude that starvation is very unlikely to be a significant cause of mortality in the field for *Ischnura* (or indeed most other Odonata larvae), but that prey availability undoubtedly influences development rates. Natural selection should therefore favour larvae that forage optimally to minimize development times. (Author).

- (2844) LEGRAND, J., 1980. *Macromia hervei* n.sp. précédemment confondue avec *M. aequatorialis* (Martin, 1906) (Odonata: Libellulidae). *Revue fr. Ent. (N.S.)* 2 (1): 10-14. (With Engl. s.). — (*Lab. Ent., Mus. natn. Hist. nat., 45, rue de Buffon, F-75005 Paris*). *M. aequatorialis* is redescribed and illustrated, and a lectotype is designated. *M. hervei* sp.n. is described and illustrated from specimens from the Ivory Coast and the Central African Republic (σ holotype, ρ allotype: Lamto, Ivory Coast; 22-11-1978 and 9-2-1978 resp.; a number of σ paratypes). The new sp. has been formerly confused with *M. aequatorialis*; the distinctive features of the 2 spp. are given in a table.

- (2845) MEINERTZHAGEN, I.A., C.J. ARMETT-KIBEL & K.L. FRIZZELL, 1980. The number and arrangement of elements in the lamina cartridge of the dragonfly *Sympetrum rubicundulum*. *Cell Tissue Res.* 206 (3): 395-401. — (Reprint requests to the second author: *Dept. Biol., Univ. Massachusetts-Boston, Harbor Campus, Boston, Mass. 02125, USA*).

5 monopolar cells and 2 long visual fibres are a consistent component of the lamina cartridge of the ventral half of the eye of *S. rubicundulum*. They communicate with the chiasma via a cartridge axon bundle comprising a minimum of 10 fibres. The arrangement of these elements is documented with respect to the ommatidial photoreceptor axon bundle innervating them. These relationships are described both

within the lamina cortex and in the cross-section of the underlying cartridge. (Authors).

- (2846) MOUZE, M., 1980. Étude autoradiographique de la prolifération et de la migration cellulaires au cours de la croissance larvaire de l'appareil visuel chez *Aeshna cyanea* Müll. (Odonata: Aeshnidae). *J. Insect. Morphol. & Embryol.* 9 (3): 41-52. (With Engl. s.). — (*Inst. Biol. animale, Univ. Sci. & Techn. Lille I, B.P. 36, F-59650 Villeneuve d'Ascq*).

Sites of cell proliferation in the ocular apparatus of *A. cyanea* have been studied by an autoradiographic method (^3H -thymidine). This technique was used to locate at the compound eye and optic lobe levels the zones of cellular multiplication and the migration of newly formed cells. In addition, the effect of the differential growth of the compound eye on the development of the optical lobe was studied. In the compound eye, two distinct levels of cell proliferation were revealed: the first one was the ocular budding zone itself, i.e. the ocular edge adjacent to the cephalic epidermis. A second mitotic focus, where the cells gather into ommatidial columns, was demonstrated. Thus, two closely related successive mitotic waves occur in the eye of this heterometabolous insect, whereas in holometabolous insects these two phases are much more distinct. Migration of ganglionic cells from the neuroblast masses, where they are formed, to the optical ganglions, where they differentiate, was also followed by this method. In addition, a differential growth of optic lobes was revealed: at the end of the nymphal life, the development was much greater in the posterior area of the optic lobes than in the anterior, although the numbers of cells produced in the neuroblast masses were, at the beginning, identical in both areas. This observation has been interpreted in the light of the experimental results. (Author).

- (2847) NIEHUIS, M., 1980. (Odonata: Cordulegasteridae) — *Cordulegaster bidentatus* Selys — Erstnachweis für Pfalz. *Pfälzer*

Heimat 31 (1): 10. — (*Im vorderen Grossthal 5, D-6743 Albersweiler, GFR*).

June 21, 1979, a ♀ was taken nr. the village of Nothweiler in southern Pfalz. This is the first record of this sp. for the region of Pfalz, German Federal Republic.

- (2848) ODONATA RECORDING SCHEME NEWSLETTER (listed previously as "Odonata Mapping Scheme Newsletter"). Compiled by National Organizer D.G. Chelmick, No. 4 (Spring 1980). — (c/o Mr. D. G. Chelmick, "Bredon", High Beech Lane, Haywards Heath, Sussex, UK).

The titles of the 2-page issue are: "Progress in 1979", "Identification problems", "Recorders' meeting", "Help!", and "Bookshelf".

- (2849) SANDHALL, Å., U. NORLING & B.W. SVENSSON, 1980. Libellen en andere netvleugeligen. Natuurgids in kleuren over uiterlijk, levenswijze en gedrag der netvleugeligen. [Dragonflies and other alder flies. A color guide on the general appearance, life history, bionomy and behaviour of alder flies]. Elmar Publishers, no place stated. 95 pp. + 141 col. ill. (Dutch). — Price: Hfl. 16.90. — (*Bygglovgränden 9, S-222 47-Lund, Sweden*).

Dutch edition of the volume listed in *OA* No. 1742, translated and adapted by Dr. W.J. Kabos. (For another translation and adaptation by the same translator cf. *OA* No. 2565). The title is erroneously translated: aside from classifying the Odon. under the Neuroptera, it also does not cover the scope of the book. For the correct scope of the Swedish term, "*sländor*", i.e. the original title of the book, cf. *OA* No. 1742. Nearly half of the book and approx. 40 photographs are devoted to the Odon. — (For the Finnish edition cf. *OA* No. 2850).

- (2850) SANDHALL, Å., U. NORLING & B.W. SVENSSON, 1980. Sudenkorennot sukulaisineen. Ulkonäkö, kehitysvaiheet, elintavat ja käyttäytyminen. 95 pp., 141 col. ill. incl. WSOY, Porvoo-Helsinki-Juva. (Finnish). — (*Bygglovgränden 9, S-222 47 Lund,*

Sweden).

Finnish edition of the volume listed in *OA* No. 1742. The text was translated and adapted to Finnish conditions by Dr. J. Syrjämäki. Because of the similarity of the Finnish and Swedish dragonfly fauna, only minor alterations were introduced in the text. (For a Dutch edition cf. *OA* No. 2849).

- (2851) SANTOS, N.D. [dos], 1980. Descrição da larva de *Diastatops obscura* (Fabr., 1775) Erichson, 1848 e interrelações genéricas (Odo., Libellulidae). [Description of the larva of *Diastatops obscura* (Fabr., 1775) Erichson, 1848 and the intergeneric relationships (Odo., Libellulidae)]. Resumos VI Congr. Brasil. Ent., São Paulo, pp. 334-335. (Portuguese). — (*Mus. Nac., Univ. Fed. Rio de Janeiro, Quinta da Boa Vista, Guanabara-ZC-08, Rio de Janeiro, Brazil*). The exuviae of *D. obscura* from Rio São João, RJ, Brazil, is described. It appears similar to that of *Celithemis eponina*, but differs appreciably from that of *Perithemis*.

- (2852) SELYSIA. A Newsletter of Odonatology. Compiled by M.J. Westfall, Jr. & M.S. Westfall, Dept. Zool., Univ. Florida, Gainesville, Fla. Vol. 9, No. 1 (March 1, 1980). — Sent free of charge to all members of the International Odonatological Society and to anybody else expressing to the Editors the desire to receive it. — (c/o Prof. Dr. M.J. Westfall, Jr., Dept. Zool., Univ. Florida, Gainesville, Fla 32611, USA). *Tennessen, K.J.* (1949 Hickory Ave., Florence, Alabama 35630, USA): Fifth International Symposium of Odonatology (1-2); — *Gloyd, L.K.* (Div. Insects, Mus. Zool., Univ. Michigan, Ann Arbor, Mich. 48109, USA): Solutions for making visible color patterns obscured by postmortem changes and for relaxing dried specimens (3); — A tragedy for *Argia* and *Protoneura* type specimens (3-4); — A red-letter day (5); — *Schiess, H.* (Brüglenstr. 1, CH-8344 Adetswil): Sixth International Symposium of Odonatology: Advance announcement (5-6); — *Rudolph, R.* (Biol. Abt., P.H., Fliegerstr. 21, D-44 Münster, GFR): Meeting of

- European dragonfly workers (6-7); — *Chelmick, D.* ("Bredon", High Beech Lane, Haywards Heath, Sussex, UK): Report on the first meeting of British Odonata recorders for the British Odonata Mapping Scheme (7-8); — *Kiauta, B. & M.A.J.E. Kiauta* (Dept. Anim. Cytogen. & Cytotax., Univ. Utrecht, Padualaan 8, Utrecht, Holland): Research trip to the Orient (8-9); — *Jurzitza, G.* (Bot. Inst. I, Univ. Karlsruhe, Kaiserstr. 12, D-75 Karlsruhe, GFR): Research trip to South America (9); — *Williams, C.E.* (704 Foster Str., Marlin, Texas 76661, USA): Curtis and Lunell Williams visit in Holland and West Germany (9); — *Belle, J.* (Onder de Beumkes 35, 6883 HC Velp, Holland): A visit to Carl Cook in Kentucky (10); — *Kiauta, B. & M.A.J.E. Kiauta*: Japanese collapsible collecting nets (10-11); — (*Anonymous*): S.I.O. members promoted (11); — News from Dr. Chao (11); — Dr. Rainer Rudolph in the news (11); — Odonata Mapping Scheme Newsletter (12); — Dr. Machado visits Dr. Belle in Velp (12); — Corbet's article on biology of Odonata (12); — *Blust, M.H.* (Stroud Water Res. Cent., R.D.1, Box 512, Avondale Pa. 19311, USA): Data on *Stylogomphus albistylus* wanted (12); — *Cammaerts, R.J.P.* (Lab. Zool. gén., Univ. Libre Bruxelles, 50 Av. F.D. Roosevelt, B-1050 Brussels): Loan of African Gomphidae desired (12); — (*Anonymous*): Rosser Garrison in Puerto Rico (12); — *Dunkle, S.* (1928 S.W. 48th Ave., Gainesville, Fla 32608, USA): Second instar Anisoptera needed (13); — (*Anonymous*): Donnelly roams again (13); — Attention odonatologists going to the International Congress of Entomology (13); — Dr. Boyes dies (13); — Changes of addresses (13).
- (2853) VERDONK, M., 1980. Libelleninventarisatie in Winterswijk. [Dragonfly inventarisation in Winterswijk]. Trias 1980 (1): 4-6. (Dutch). — (*Floralialaan 47, Bussum, NL*). 21 spp. recorded 1968-1971 and 1975-1979 in the area of Winterswijk, the Netherlands, are listed and discussed, with special reference to the changes in the fauna composition and population density noticed between the 2 periods. (Cf. also OA No. 1704).
- (2854) VERDONK, M., 1980. Verschillen tussen *Ischnura elegans* en *I. pumilio*. [Specific distinctions between *Ischnura elegans* and *I. pumilio*]. Trias 1980 (1): 7-12. (Dutch). — (*Floralialaan 47, Bussum, NL*). Distinctions were noticed between the 2 spp. in phenology, daily activity, sexual behaviour, habitat, and in their behaviour after rain. The observations were carried out during 2 yrs in a locality nr. Winterswijk, the Netherlands.
- (2855) VICK, G.S., 1980. In search of European Odonata — 1979. Bull. amat. ent. Soc. 39 (326): 48-54. — (*Crossfields, Little London, Basingstoke, Hants., UK*). An account is given of the odon. material collected during 2 trips in France (Herauld, Gard, Bouches-du-Rhone), Italy (Piedmont), Switzerland (Grisons: St. Moritz), Austria (Tyrol: Fernpass) and German Federal Republic (Bavaria: Sonthofen). The fauna of each locality is discussed in considerable detail.
- (2856) WELLINGHORST, R. & W. MEYER, 1980. Die Libellenfauna des Altkreises Bersenbrück. Osnabrück. naturw. Mitt. 7: 79-104. — (First author: *Nordstr. 3, D-4558 Bersenbrück, GFR*; — Second author: *Inst. Zool., Tierärztliche Hochschule, Bischofsholer Damm 15, D-3000 Hannover-1, GFR*). An annotated list is given of 38 spp., recorded during the past 20 yrs in a region nr Osnabrück, Lower Saxony, German Federal Republic. 6 of these became extinct in the area in the mid of 1960-s (*Platynemus pennipes*, *Coenagrion lunulatum*, *Erythromma najas*, *Aeshna isosceles*, *Anax imperator*, *Brachytron pratense*). At present, the most remarkable spp. are *Ceriatagrion tenellum*, *Aeshna subarctica* and *Leucorrhinia pectoralis*.
- (2857) WINSTANLEY, W.J. & R.J. ROWE, 1980. The larval habitat of *Uropetala carovei* (Odonata: Petaluridae) in the North Island of New Zealand, and the geographical limits

of the subspecies. N.Z. Jl Zool. 7: 127-134. — (Zool. Dept. Victoria Univ. of Wellington, Private Bag, Wellington, NZ).

The genus *Uropetala* is represented in New Zealand by *U. carovei* and *U. carovei chiltoni*. These taxa have been described as montane bog-dwellers, an inappropriate description for *U. c. carovei*. Typical lowland larval habitats of *U. c. carovei* on the North Island are described and illustrated. The ecological significance of the habitat differences between the taxa are discussed. *U. c. chiltoni* was described from specimens taken near Arthur's Pass and Cass in the South Island, but uncertainty has since existed about its wider distribution. Records of *U. c. carovei* from the South Island are now presented which indicate that *U. c. chiltoni* may be restricted to the eastern part of the South Island, and that *U. c. carovei* occurs elsewhere. (Authors).

(2858) ZÜRCHER LIBELLENFORUM. Compiled by H. Schiess (*Brüglenstr. 1, CH-8344 Adetswil*), Nos. 1, 2 (March, 1980).

This is a newsletter of the odonatological club of the same name. The coordinator of the club and the editor of the newsletter is H. Schiess (address above). The objective of the club is, for the time being, the preparation of a survey of the odon. fauna of the Zürich Canton, Switzerland, which should be completed by the end of 1982. — The newsletter is distributed free of charge, and the first 2 issues contain the minutes of the discussion meeting on the organisational details of the survey, and the membership list, respectively. In the latter, 18 addresses are listed. Most of the members are Swiss, but the Principality of Liechtenstein and the German Federal Republic are also represented.