

IICA



BIBLIOGRAFIA SOBRE LANGOSTA DEL DESIERTO (*Schistocerca gregaria*)



Información recuperada de las Bases de Datos
AGRIS/FAO y CAB Abstracts

Proyecto Regional de Sanidad Vegetal (Centroamérica)

PROGRAMA V: SALUD ANIMAL Y SANIDAD VEGETAL

CENTRO INTERAMERICANO DE DOCUMENTACION E INFORMACION AGRICOLA (CIDIA)

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BIBLIOGRAPHY ON THE DESERT LOCUST (*Schistocerca gregaria*)

WORKING DOCUMENT No. 1

Information compiled from the AGRIS/FAO
Data Base and CAB Abstracts

Regional Plant Protection Project (Central America)

PROGRAM V: ANIMAL HEALTH AND PLANT PROTECTION
INTER-AMERICAN AGRICULTURAL DOCUMENTATION AND INFORMATION CENTER (CIDIA)

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INTRODUCCION

La "Langosta del Desierto" (*Schistocerca gregaria*) (Forskall, 1775) es considerada uno de los principales azotes en el Africa, por las enormes pérdidas que repetidamente ha causado a su agricultura.

La especie es tan voraz que diariamente consume vegetación en cantidad igual a su propio peso (2 gms). Así una manga compuesta por unos 50 millones de adultos consumiría diariamente unas 100 mil toneladas de alimento.

Esta especie es la única del género *Schistocerca* que habita en Africa, en tanto que en América se ha informado sobre varias especies de otros tipos de langosta.

Es una plaga muy antigua; la Biblia la cita como la "Octava plaga de Egipto". Por otra parte, viejas ilustraciones asirias la reproducen, como en los siguientes ejemplos:

Sirvientes, sirven langostas en un banquete de la sociedad, en Ninive (705-681 A.C.). También una teja esmaltada de un templo muestra a nobles rogando al dios Ashur y la escena se interpreta como un voto pidiendo clemencia ante una calamidad acridiana (en el esmaltado se ve una langosta, que se supone es (*S. gregaria*)). Una ilustración más se encuentra en un bajo relieve de una tumba de la 6a. Dinastía (2340-2500) de Egipto, en que se ve una langosta (probablemente *S. gregaria*) devorando una planta.

Las mangas de esta langosta pueden invadir áreas superiores a 28 millones de km. en Africa en períodos de invasión generalizada en la zona tropical del Norte de Africa y sus estragos se extienden por la mayoría de los países áridos de la Costa Oeste de Africa y de India.

La especie comentada ha adquirido importancia en América, luego de que en 1988 se detectó su presencia en algunas áreas del Caribe; desde Jamaica a Suriname y Venezuela. Se informó que en Dominica algunos cultivos fueron atacados, aunque no se produjeron daños masivos.

Se espera sin embargo, que la plaga por tener su "habitat" en áreas desérticas, no logre adaptarse al clima caribeño de la región invadida. Sin embargo, los gobiernos de esta región, lo mismo que instituciones agrícolas regionales como el IICA y OIRSA, deben estar atentos al desenvolvimiento de la plaga, para conocer su comportamiento y poder dictar las medidas que sean necesarias para la protección de la agricultura.

Debido a la importancia de esta plaga a nivel de América Latina y el Caribe, el Programa de Salud Animal y Sanidad Vegetal del IICA ha decidido publicar información bibliográfica sobre esta temible plaga, en forma conjunta con el Centro Interamericano de Documentación e Información Agrícola-CIDIA.

La información se recuperó de las bases de datos AGRIS de la FAO, CAB Abstracts y del acervo bibliográfico de la Biblioteca Conmemorativa Orton del CÍDIA, con sede en Turrialba, Costa Rica. Las referencias bibliográficas se han agrupado por temas alfabéticamente por título del documento. Cada cita bibliográfica está precedida por un número correlativo entre paréntesis. Se incluye índice de autor, para facilitar la consulta de la obra.

La clasificación temática de los registros bibliográficos estuvo a cargo del Dr. Alberto Perdomo, Especialista en Sanidad Vegetal Programa V, y la labor de búsqueda en las bases de datos, organización y edición de la información, fue realizada por la Lic. Lina Román del Centro Interamericano de Documentación e Información Agrícola - CÍDIA.

Federico Dao
Director Adjunto de
Sanidad Vegetal

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Las referencias bibliográficas acompañadas de un asterisco (*), indican la existencia de los documentos en las colecciones de la Biblioteca Conmemorativa Orton del Centro Interamericano de Documentación e Información Agrícola-CIDIA.

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INTRODUCTION

The desert locust (Schistocerca gregaria) (Forshall, 1775) is considered one of the major pests in Africa because of the huge losses it has caused to agriculture over the years.

The species is so voracious that its daily consumption of vegetation is equal to its own weight (2 grams). Therefore, a plague of 50 million adult locusts would consume 100,000 tons of food per day.

Of the genus Schistocerca, this is the only species which lives in Africa. In the Americas, the presence of several species of other types of locust has been reported.

This pest is very ancient. In the Bible it is referred to as the "eighth plague of Egypt". It also appears in ancient Assyrian drawings: servants offer locusts to guests at a high society banquet in Nineveh (705-681 B.C.); an enameled tile from a temple shows noblemen praying to the god Ashur to spare them from an invasion of locusts (a locust believed to be S. gregaria can be seen on the tile); and, in a bas-relief on a tomb from the sixth Egyptian dynasty (2340-2500) there is a locust (probably S. gregaria) devouring a plant.

During periods of generalized infestation, these locust plagues can invade areas of more than 28 million km in the tropical zone in northern Africa, and the damage they cause extends into most of the arid countries of the west coast of Africa and into India.

More attention is being paid to this species since its presence was detected in 1988 in certain areas of the Caribbean: from Jamaica to Suriname and Venezuela. Though not severe, there were also reports of damage in Dominica.

However, because the habitat of this pest is the desert, it is believed that it will not be able to adapt to the climate of the Caribbean countries where the infestations have occurred. Nevertheless, governments in the region, and regional agricultural institutions such as IICA and DIRSA, must keep an eye on this pest to observe its behavior and take the steps necessary to protect agriculture.

In view of the importance of this pest for Latin America and the Caribbean, IICA's Animal Health and Plant Protection Program has decided to publish this bibliography on this pest, in conjunction with the Inter-American Agricultural Documentation and Information Center (CIDIA).

Information was taken from FAO's AGRIS data base and from CAB Abstracts, and entries total 367. These have been grouped by topics, and, under each topic, the bibliographic references are listed in alphabetical order by title. Each bibliographic reference is preceded by a number in parentheses. Author index to help in consulting the works is included.

The classification of the bibliographic references by topic was done by Dr. Alberto Perdomo, Plant Protection Specialist in Program V, and the search of the data bases and organization and publication of the information was the responsibility of Lina Román of the Inter-American Agricultural Information and Documentation Center.

Federico Dao
Associate Director of
Plant Protection

HOW TO REQUEST PHOTOCOPIES

Bibliographic references with asterisks indicate that the document is available at the Orton Memorial Library of the Inter-American Center for Agricultural Documentation and Information-CIDIA.

CIDIA will attend requests for photocopies through its Documents Reproduction and Referral Services.

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If the publication is not available at CIDIA we suggest that you contact the libraries in your country. If you can not find the publications in either of these possibilities, contact CIDIA again and we will refer you to the respective Information Unit where the document can be requested.

Please send your request to:

Biblioteca Conmemorativa Orton
IICA-CIDIA
Turrialba, Costa Rica

A. Biología / Biology

A1. Taxonomía / Taxonomy

- (1) Laboratory evidence showing the separate species status of Schistocerca gregaria, americana and cancellata (Acrididae, Crytacanthacridinae)
Jago, N.D.; Antoniou, A. y Scott, P.
Systematic Entomology 4(2):133-142. 1979.
- (2) Speciation within the Schistocerca americana complex.
[Abstract].
Proceedings, 2nd Triennial Meeting, Pan American
Acridological Society, Bozeman, Montana, USA, 21-25 July, 1979
[edited by Tyrkus, M.; Cantrall, I.J.; Carbonell, C.S.].
Jago, N. D.; Harvey, A. W.
Tyrkus, M.; Cantrall, I. J.; Carbonell, C. S.; Pan
American Acridological Society
Centre for Overseas Pest Research, London W8 5SU, United
Kingdom.
Ann Arbor, Michigan, USA; Edward Brothers
1983. 225
Language: English

A2. Morfología / Morphology

- (3) Aspects of external morphology of Schistocerca gregaria Forsk.) (Orthoptera: Acridoidea).
Proceedings of the 5th Pakistan Congress of Zoology,
University of Karachi, Karachi, January 8-11, 1986.
Moizuddin, M.; Ahmad, I.
Locust & Grasshopper Res. Lab., Bhawani, Malir Halt,
Karachi, Pakistan.
Karachi, Pakistan; Zoological Society of Pakistan
1987. 69-77 (22 ref., 2 fig.)
Language: English
- (4) TI : Classification of colour patterns of hoppers of the desert locust, Schistocerca gregaria (Forsk.), with reference to colour variations in transiens forms.
AU : Leheta, M.F.
LA : En
NS : Desert locust field research stations. Technical series. Desert locust project.
Progress report. FAO, Rome (Italy). Plant Production and Protection Div.
RP : FAO-AGP--DL/TS/20.
IM : Jun 1979. p. 10-39.
NO : illus., tables; 3 ref.; Summary (En) - MICROFICHE NO. 8004797-813-E.
CN : Country: XF. R (Report).
LI : E (Summary) V (Non conventional).
CC : H10 (Pests of plants). 4020.
FT : animal morphology; colours; schistocerca gregaria; hoppers. (en)
- (5) The Comstock-Kellogg glands in female Schistocerca gregaria: their eversion and haemocoelic pressure.
Strong, L.
Department of Zoology, The University, Bristol, BS8 1UG,
United Kingdom.
Journal of Insect Physiology 1984. 30 (4): 303-309 (18
ref., 2 fig.)
Language: English

- (6) TI : Development and morphogenesis of the "fenestrae" specialized integumentary areas of the desert locust *Schistocerca gregaria* (Orthoptera: Acrididae).
 AU : Sbrenna, G.; Sbrenna Micciarelli, A. (Ferrara Univ. (Italy). Istituto di Zoologia).
 LA : En
 JR : Acta Embryologiae et Morphologiae Experimentalis (Italy). ISSN 0391- 9706. (Dec 1980). v. 1(3) p. 199-215. Issued Apr 1981.
 NO : 23 ill., 2 tables; 27 ref. Summary (En).
 CN : Country: XEIT. J (Serial article).
 LI : E (Summary).
 CC : L40 (Animal structure) L50. 7900.
 AB : In the abdominal terga of *S. gregaria* larvae and adults there are specialized integumentary areas, "fenestrae", which are characteristic of the Acrididae (Orthoptera). They appear in the 1st abdominal segment in the fourth larval instar, in the 2nd, 3rd and 4th segments in the fifth instar, and in the remaining segments (5th, 6th, 7th and 8th) in the adult. This leads us to suppose that a gradient exists. During their morphogenesis the cells of the "presumptive areas" of the fenestrae stop synthesizing the endocuticular layers, do not divide mitotically and, after apolysis, synthesize epicuticle and exocuticle. This exocuticle differs from that of the normal integument in having more numerous and larger pore canals. After the imaginal ecdysis, while the epidermal cells are depositing the endocuticle, the cells of the fenestrae do not do so and instead begin their new functional activity. This morphogenesis is compared and contrasted with that of other specialized integumentary structures. (EN)
- (7) TI : Development of the locust (*Schistocerca gregaria* (Forsk.)) ocellus.
 AU : Mobbs, P.G. (Department of Zoology + Comparative Physiology, Queen Mary College, London E1 4NS (UK)).
 LA : En
 JR : Nature (UK). (1976). v. 264(5583) p. 269-271.
 NO : 7 ref., 2 fig.
 CN : Country: XEGB. J (Serial article).
 CC : H10 (Pests of plants).
- (8) TI : Directional hearing in the locust *Schistocerca gregaria* Forskal (Acrididae, Orthoptera).
 AU : Miller, L.A. (Odense Univ. (Denmark). Inst. of Biology).
 LA : En
 JR : Journal of Comparative Physiology. A (Germany, F.R.). ISSN 0340- 7594. (1977). v. 119(1) p. 85-98.
 NO : 8 illus.; 11 ref.; Summary (En).
 CN : Country: XEDE. J (Serial article).
 LI : E (Summary).
 CC : L40 (Animal structure).
- (9) TI : Effects of hosts on the morphometrics and phase status of *Schistocerca gregaria* Forskal.
 AU : Manchanda, S.K.; Sachan, G.C.; Rathore, Y.S.
 LA : En
 JR : Zeitschrift fuer Angewandte Entomologie (Germany, F.R.). ISSN 0044- 2240. (1980). v. 89(1) p. 26-31.
 NO : 2 tables; 14 ref. Summaries (De, En).
 CN : Country: XEDE. J (Serial article).
 LI : E (Summary).
 CC : H10 (Pests of plants). 4020.
- * (10) TI : The innervation of the wind-sensitive head hairs of the locust, *Schistocerca gregaria*.
 AU : Bacon, J. (Department of Biochemistry, Manchester University Institute of Science and Technology, Manchester M60 1QD (UK)); Tyrer, M.
 LA : En
 JR : Physiological Entomology (UK). (1979). v. 4(4) p. 301-309.
 NO : 13 ref., 8 fig.
 CN : Country: XEGB. J (Serial article).
 CC : H10 (Pests of plants). 4020.

- (11) **Innervation patterns of inhibitory motor neurones in the thorax of the locust.**
 Hale, J. P.; Burrows, M.
 Department of Zoology, University of Cambridge, Cambridge, CB2 3EJ, United Kingdom.
 Journal of Experimental Biology 1985. 117 401-413 (38 ref., 6 fig.)
 Language: English
- (12) **Integration of wing proprioceptive and descending exteroceptive sensory inputs by thoracic interneurons of the locust [*Schistocerca gregaria*].**
 Elson, R. C.
 Dep. Zool., Univ. Cambridge, Cambridge, CB2 3EJ, UK.
 Journal of Experimental Biology 1987. 128 193-217 (58 ref., 9 fig.)
 Language: English
- (13) **Morphology of neurons in locust brain and suboesophageal ganglion involved in initiation and maintenance of walking.**
 Kien, J.; Williams, M.
 Abteilung Huber, Max Planck Institut für Verhaltensphysiologie, Seewiesen, German Federal Republic.
 Proceedings of the Royal Society of London, B (Biological Sciences) 1983. 219 (1215): 175-192 (26 ref., 11 fig.)
 Language: English
- (14) **Morphometric study of a concentration of desert locust population during recession in relation to habitats.**
 Harjai, S. C.
 Locust Warning Organisation, Jodhpur, India.
 Plant Protection Bulletin, India 1981, publ. 1983. 33 (3/4): 67-72 (15 ref.)
 Language: English
- (15) **TI : Phase polymorphism in *Schistocerca gregaria*: assessment of juvenile hormone synthesis in relation to vitellogenesis.**
AU : Injeyan, H.S. (Zoology Department, Toronto University, Toronto M5S 1A1, Ontario (Canada)); Tobe, S.S.
LA : En
JR : Journal of Insect Physiology (UK). (1981). v. 27(3) p. 203-210.
NO : 37 ref., 7 fig.
CN : Country: XEGB. J (Serial article).
CC : H10 (Pests of plants). 4020.
- (16) **Plasticity and proprioception in insects. I. Responses and cellular properties of individual receptors of the locust metathoracic femoral chordotonal organ.**
 Zill, S. N.
 Department of Biology, University of Oregon, Eugene, OR 97403, USA.
 Journal of Experimental Biology 1985. 116 425-461 (51 ref., 13 fig.)
 Language: English
- (17) **Plasticity and proprioception in insects. II. Modes of reflex action of the locust metathoracic femoral chordotonal organ.**
 Zill, S. N.
 Department of Anatomy, University of Colorado Medical School, Denver, CO 80262, USA.
 Journal of Experimental Biology 1985. 116 463-480 (35 ref., 11 fig.)
 Language: English

- *(18) TI : Studies on the mid-gut of the desert locust, *Schistocerca gregaria*. I. Morphology and electrophysiology of the muscle coat.
 AU : Anderson, M. (Department of Zoology, Glasgow University (UK)); Cochrane, D.G.
 LA : En
 JR : Physiological Entomology (UK). (1977). v. 2(4) p. 247-253.
 NO : 20 ref., 7 fig.
 CN : Country: XEGB. J (Serial article).
 CC : H10 (Pests of plants).
- (19) TI : Studies on the mid-gut of the desert locust *Schistocerca gregaria*. II. Ultrastructure of the muscle coat and its innervation.
 AU : Anderson, M.; Cochrane, D.G.
 LA : En
 JR : Journal of Morphology (USA). (May 1978). v. 156(2) p. 257-278. *NAL (444.8 J826).
 NO : Plates. Ref.
 CN : Country: US. J (Serial article).
 CC : L40 (Animal structure).
- (20) TI : (Teguments structure differentiation in *Schistocerca gregaria* (Ortotteri, Acrididi)). (Paper presented at a conference). Differenziazione di strutture tegumentali in *Schistocerca gregaria* (Ortotteri, Acrididi).
 AU : Sbrenna Micciarelli, A.; Sbrenna, G.
 LA : It
 JR : Acta Embryologica Experimentalis (Italy). ISSN 0065-1184. (1977). (no.3) p. 386.
 NO : Summary only.
 CP : (Gruppo Embriologico Italiano. 23. Riunione. Ferrara (Italy). 3 Jun 1977.)
 CN : Country: XEIT. J (Serial article).
 LI : K (Conference).
 CC : L50 (Animal physiology and biochemistry). 7900.
- *(21) TI : Ultrastructural study in culture of larval teguments of *Schistocerca gregaria* Forsk., orthopteroid insect (ultrastructure). Etude ultrastructurale de teguments larvaires de *Schistocerca gregaria* Forsk., insecte orthopteroïde en culture (ultrastructure).
 AU : Caruelle, J.P.; Caruelle, D. (Paris-12 Univ., 94 - Creteil (France). IUT de Creteil. Lab. de Biologie Appliquee).
 LA : Fr
 JR : Comptes Rendus Hebdomadaires des Seances de l'Academie des Sciences. Serie D (France). ISSN 0567-655. (30 Jan 1978). v. 286(4) p. 339- 341.
 NO : 15 ref. Summaries (En, Fr).
 CN : Country: XEFR. J (Serial article).
 LI : E (Summary).
 CC : L40 (Animal structure) L05.
- (22) TI : Ultrastructure of the 'fenestrae' specialized integumentary areas of the desert locust, *Schistocerca gregaria* Forsk. (Orthoptera: Acrididae).
 AU : Sbrenna, G. (Institute of Zoology, Ferrara University, 44100 Ferrara (Italy)); Antonelli, M.
 LA : En
 JR : International Journal of Insect Morphology and Embryology (UK). (1977). v. 6(5/6) p. 265-275.
 NO : 25 ref., 19 fig.
 CN : Country: XEGB. J (Serial article).
 CC : H10 (Pests of plants).
- (23) Ultrastructure of the Malpighian tubules of *Schistocerca gregaria*.
 Garrett, M. A.; Bradley, T. J.; Meredith, J. E.; Phillips, J. E.
 Dep. Developmental & Cell Biol., Univ. California, Irvine, CA 92717, USA.
 Journal of Morphology 1988. 195 (3): 313-325 (33 ref., 11 fig.)
 Language: English

A3. Fisiología y Bioquímica / Physiology and biochemistry

- (24) **Aerobic amino acid metabolism in the locust nervous system.**
Jabbar, A.; Dow, E. A.; Strang, R. H. C.
Dep. Biochem., Univ. Glasgow, UK.
Insect Biochemistry 1987. 17 (1): 207-211 (25 ref., 1 fig.)
Language: English
- *(25) **Asymmetry in hormone biosynthesis by insect endocrine glands.**
Tobe, S.S.
Canadian Journal of Zoology 55(9):1509-1514. 1977.
- *(26) **TI : Biological effects of juvenile hormone analogues on the desert locust, Schistocerca gregaria (Forsk.).**
AU : El-Gulindy, M.A. (Central Agricultural Pesticides Laboratory, Plant Protection Research Institute, Ministry of Agriculture, Dokki (Egypt)); Hussein, E.M.K.; Mariy, F.M.A.; Ibrahim, E.E.H.
LA : En
JR : International Pest Control (UK). (1981). v. 23(6) p. 158-161, 164.
NO : 11 ref.
CN : Country: XEGB. J (Serial article).
CC : H10 (Pests of plants). 4020.
- (27) **Breakdown of locust adipokinetic hormone I by Malpighian tubules of Schistocerca gregaria.**
Siegert, K. J.; Mordue, W.
Dep. Zool., Univ. Aberdeen, Aberdeen, AB9 2TN, UK.
Insect Biochemistry 1987. 17 (5): 705-710 (25 ref., 4 fig.)
Language: English
- *(28) **TI : Bursicon-mediated control of tanning in melanizing and non-melanizing first instar larvae of Schistocerca gregaria.**
AU : Padgham, D.E. (Centre for Overseas Pest Research, London W8 5SJ (UK)).
LA : En
JR : Journal of Insect Physiology (UK). (1976). v. 22(11) p. 1447-1452.
NO : 17 ref., 3 fig.
CN : Country: XEGB. J (Serial article).
CC : H10 (Pests of plants).
- (29) **Cellular mechanisms and control of KCl absorption in insect hindgut.**
Hanrahan, J. W.; Phillips, J. E.
Department of Zoology, British Columbia University.
Vancouver V6T 2A9, Canada.
Journal of Experimental Biology 1983. 106 71-89 (40 ref., 9 fig.)
Language: English
- (30) **The central nervous organization of the motor neurones to a steering muscle in locusts [Locusta migratoria and Schistocerca gregaria].**
Pflugger, H. J.; Elson, R.; Binkle, U.; Schneider, H.
Fakultat fur Biologie, Universitat Konstanz, D-7750
Konstanz 1, German Federal Republic.
Journal of Experimental Biology 1986. 120 403-420 (39 ref., 8 fig.)
Language: English
- (31) **A comparative study of the inhibition of acetylcholinesterase and carboxylesterase from the nervous tissues of the desert locust, Schistocerca gregaria F.**
Phokela, A.; Mehrotra, K. N.
Division of Entomology, Indian Agricultural Research Institute, New Delhi 110 012, India.
Proceedings of the Indian National Science Academy, B 1984
50 (1): 10-14 (20 ref.)
Language: English

- (32) **Chemographic recording of distinct insect muscle contractions elicited neuronally and by the direct application of L-glutamate.**
Registro quimografico de distintas concentraciones [contracciones] de musculo de insecto evocadas neuralmente y tras aplicacion directa de L-glutamate.
 Actas del I Congreso Iberico de Entomologia, Leon. Celebracion conjunta del III Congreso Internacional da Sociedade Portuguesa de Entomologia y de las VI Jornadas de la Asociacion Espanola de Entomologia. Facultad de Biología, Leon, 7 al 10 Junio de 1983.
 Diaz-Mayans, J.; Nunez Cachaza, A. (Mayans, J. Diaz; C achaza, A. Nunez)
 Departamento de Fisiologia Animal, Facultad de Ciencias Biologicas, Universidad de Valencia, Burjasot, Spain.
 Leon, Spain: Servicio de Publicaciones de la Universidad de Leon
 1983. 213-217 (5 ref., 3 fig.)
 Language: Spanish Summary Language: English
- (33) **The distribution of taurine in the tissues of some species of insects.**
 Whitton, P. S ; Strang, R. H. C.; Nicholson, R. A.
 Dep. Biochem., Univ. Glasgow, Glasgow, G12 8QQ, UK.
 Insect Biochemistry 1987. 17 (4): 573-577 (17 ref., 2 fig.)
 Language: English
- * (34) **TI : Effect of inhibitors on chloride-dependent transmural potential in the rectal wall of *Schistocerca gregaria*.**
AU : Herrera, L. (Department of Zoology, Navarra University, Pamplona (Spain)); Jordana, R.; Ponz, F.
LA : En
JR : Journal of Insect Physiology (UK). (1977). v. 23(6) p. 677-682.
NO : 14 ref., 1 fig.
CN : Country: XEGB. J (Serial article).
CC : H10 (Pests of plants).
- (35) **TI : Effect of ionizing radiation on tissue proteins of the desert locust, *Schistocerca gregaria* Forskal.**
AU : Rao, P.J.; Singh, Y.; Mehrotra, K.N. (Indian Agricultural Research Inst., New Delhi. Div. of Entomology).
LA : En
JR : Journal of Nuclear Agriculture and Biology (India). (Sep 1981). v. 10(3) p. 78-81.
NO : 4 ill.; 13 ref. Summary (En).
CN : Country: IN. J (Serial article).
LI : E (Summary).
CC : L50 (Animal physiology and biochemistry). 4020.
- (36) **The effect of octopamine, cyclic adenosine 3',5'-monophosphate and calcium on protein phosphorylation in *Schistocerca gregaria* central nervous system.**
 Rotondo, D.
 Thesis, Glasgow University, UK
 British Reports, Translations and Theses 1987. 87 (12): 36 (275pp.)
 Language: English
- (37) **Effect of substratum wettability and charge on adhesion in vitro and encapsulation in vivo by insect haemocytes.**
 Lackie, A. M.
 Department of Zoology, The University, Glasgow G12 8QQ.
 United Kingdom.
 Journal of Cell Science 1983. 63 181-190 (22 ref., 2 fig.)
 Language: English

- * (38) TI : The effects of increasing mandibular load on electrical activity in the mandibular closer muscles during feeding in the desert locust, *Schistocerca gregaria*.
 AU : Seath, I. (School of Biological Sciences, East Anglia University, Norwich, Norfolk (UK)).
 LA : En
 JR : Physiological Entomology (UK). (1977). v. 2(3) p. 237-240.
 NO : 4 ref., 2 fig.
 CN : Country: XEGB. J (Serial article).
 CC : H10 (Pests of plants).
- (39) TI : Effects of J.H.I. and J.H.III on yellowing, sexual activity and pheromone production in allatectomized male *Schistocerca gregaria*.
 AU : Amerasinghe, F.P. (Department of Zoology, Bristol University (UK)).
 LA : En
 JR : Journal of Insect Physiology (UK). (1978). v. 24(8/9) p. 603-611.
 NO : 34 ref., 6 fig.
 CN : Country: XEGB. J (Serial article).
 CC : H10 (Pests of plants).
- (40) TI : The effects of magnesium ions on the fine structure of the insect neuromuscular junction (*Schistocerca gregaria*).
 AU : McKinlay, R.G.; Usherwood, P.N.R.
 LA : En
 JR : Journal of Ultrastructure Research (USA). (Feb 1978). v. 62(2) p. 83-93. *NAL (440.8 J822).
 NO : Plates. Ref.
 CN : Country: US. J (Serial article).
 CC : L50 (Animal physiology and biochemistry).
- (41) TI : Enzymatic degradation of proctolin in the CNS of the locust, *Schistocerca gregaria*, by membrane bound enzymes.
 AU : Isaac, R.E.
 LA : En
 MS : Insect neurochemistry and neurophysiology, 1986. Borkovec, A.B.; Gelman, D.B. (eds.). *US (DNAL QL495.I535 1986).
 IM : Clifton, N.J. (USA). Humana Press. 1986. p. 207-210. ISBN 08-960- 31195.
 NO : ill. ref. Paper presented at the "Second International Conference on Insect Neurochemistry and Neurophysiology (ICINN-86)," August 4-6, 1986, University of Maryland, College Park, Maryland.
 CN : Country: US. B (Monograph).
 CC : L50 (Animal physiology and biochemistry).
 CTES : (lad) schistocerca; actividad enzimatica; peptidos; deterioro; sistema nervioso central. (cad) anatomia; anatomia animal; arthropodos; compuestos organicos; insectos; invertebrados; langosta (orthoptera); orthoptera; partes del cuerpo; propiedades fisico- quimicas; proteinas; sistema nervioso.
- (42) TI : Evidence for an adipokinetic function of the RPCH (red pigment concentrating hormone) activity present in the desert locust (*Schistocerca gregaria*) neuroendocrine system.
 AU : Herman, W.S.; Carlsen, J.B.; Christensen, M.; Josefsson, L.
 LA : En
 JR : Biological Bulletin (USA). (Dec 1977). v. 153(3) p. 527-539. *NAL (442.8 B52).
 NO : Ref.
 CN : Country: US. J (Serial article).
 CC : L50 (Animal physiology and biochemistry).
- (43) TI : The expansion of *Schistocerca gregaria* at the imaginal ecdysis: the mechanical properties of the cuticle and the internal pressure.
 AU : Elliott, C.J.H. (Zoology Department, South Parks Road, Oxford OX1 3PS (UK)).
 LA : En
 JR : Journal of Insect Physiology (UK). (1981). v. 27(10) p. 695-704.
 NO : 35 ref., 10 fig.
 CN : Country: XEGB. J (Serial article).
 CC : H10 (Pests of plants). 4020.

- (44) **Eye Pigmentation as a locust phase characteristic.**
 Nolte, D.J.
 Acrida 7(4):231-241. 1978.
- (45) **TI : Formation of endopolyploid cells with the morphology of classical endomitosis in the ontogeny of the desert locust *Schistocerca gregaria* (Forsk.) (Orthoptera).**
AU : Istomina, A.G.; Kiknadze, I.I.
LA : En, Ru
- JR : Soviet Journal of Developmental Biology (USA). ISSN 0049-173X. (1979). v. 9(3) p. 225-233. *US (NAL QH491.S66). Originally published in Ontogenez. p. 269-277. *US (NAL QH491.O5).**
- NO : III. 27 ref.**
CN : Country: US. Translation. J (Serial article).
CC : L05 (Animal science). 4020.
- (46) **TI : Functional and evolutionary relationships among the RPCH-AKH family of peptides.**
AU : Schaffer, M.H.
LA : En
JR : American zoologist (USA). ISSN 0003-1569. (1986). v. 26(4) p. 997- 1005. *US (DNAL 410 AM3).
NO : references. Paper presented at the symposium on "Evolution of Hormone Diversity," Dec 27/30, 1984, Denver, Colorado.
CN : Country: US. J (Serial article).
CC : L50 (Animal physiology and biochemistry) L60.
CTES: (iad) periplaneta; peptidos; evolucion; schistocerca; locusta/ hormonas. (cad) artropodos; biologia; compuestos organicos; cucaracha; dictyoptera; insectos; invertebrados; langosta (orthoptera); orthoptera; proteinas.
FT : periplaneta americana; schistocerca gregaria; locusta migratoria.
- (47) **Haemocytic encapsulation and the prophenoloxidase-activation pathway in the locust *Schistocerca gregaria* Forsk.**
 Dularay, B.; Lackie, A. M.
 Department of Zoology, The University, Glasgow, G12 8QQ, United Kingdom.
 Insect Biochemistry 1985. 15 (6): 827-834 (24 ref., 5 fig.)
 Language: English
- (48) **Histamine in the insect nervous system: distribution, synthesis and metabolism.**
 Elias, M. S.; Evans, P. D.
 Department of Zoology, Cambridge University, United Kingdom.
 Journal of Neurochemistry 1983. 41 (2): 562-568 (25 ref., 4 fig.)
 Language: English
- (49) **Inhibition and gamma-aminobutyric acid-induced conductance on locust (*Schistocera gregaria*) extensor tibiae muscle fibres.**
 Scott, R. H.; Duce, I. R.
 Dep. Zool., Nottingham Univ., Univ. Park, Nottingham, NG7 2RD, UK.
 Journal of Insect Physiology 1987. 33 (3): 183-189 (33 ref., 6 fig.)
 Language: English
- (50) **Inositol phosphates in the insect nervous system.**
 Trimmer, B. A.; Berridge, M. J.
 Department of Zoology, University of Cambridge, United Kingdom.
 Insect Biochemistry 1985. 15 (6): 811-815 (35 ref., 1 fig.)
 Language: English

- (51) **Interaction of a nicotinic acetylcholine receptor from locust (*Schistocerca gregaria*) central nervous system with concanavalin A: comparison with vertebrate receptor.**
 Robinson, T.; Aguilar, O.; Lunt, G. G.
 Department of Biochemistry, Bath University, Avon, BA2 7AY, United Kingdom.
 Biochemical Society Transactions 1984. 12 (5): 807-808
 4 ref., 1 fig.)
 Language: English
- *(52) **Juvenile hormones biosynthesis by the corpora allata of the male desert locust, *Schistocerca gregaria*, during sexual maturation.**
 Avruch, L.I., y Tobe, S.S.
 Canadian Journal of Zoology 56(10):2097-2102. 1978.
- (53) **KCl transport across an insect epithelium: characterization of K-stimulated Cl absorption and active K transport.**
 Hanrahan, J. W.; Phillips, J. E.
 Department of Zoology, British Columbia University, Vancouver, V6T 2A9, Canada.
 Journal of Experimental Biology 1984. 111 201-223 (32 ref., 11 fig.)
 Language: English
- (54) **Locust nymphal neurones in culture: a new technique for studying the physiology and pharmacology of insect central neurones.**
 Giles, D. P.; Usherwood, P. N. R.
 Department of Zoology, University of Nottingham, Nottingham, NG7 2RD, United Kingdom.
 Comparative Biochemistry and Physiology, C 1985. 80 (1): 53-59 (27 ref., 4 fig.)
 Language: English
- (55) **TI : Loss of leucine from haemolymph of the desert locust, *Schistocerca gregaria* Forskal (India). Note.**
AU : Nakt, S.S.; Mehrotra, K.N. (Indian Agricultural Research Inst., New Delhi. Div. of Entomology).
LA : En
JR : Journal of Nuclear Agriculture and Biology (India). (Mar 1981). v. 10(1) p. 30-31.
NO : 21 ref.
CN : Country: IN. J (Serial article).
CC : H10 (Pests of plants). 4020 G635.
- (56) **TI : Neuropeptide function: the invertebrate contribution.**
AU : O'Shea, M.; Schaffer, M.
LA : En
JR : Annual review of neuroscience (USA). ISSN 0147-006X. (1985). v. 8 p. 171-198. *US (DNAL QP351.A68).
NO : references.
CN : Country: US. J (Serial article).
CC : L50 (Animal physiology and biochemistry).
CTES: (lad) invertebrados; insectos; metabolismo; peptidos; sistema nervioso/ schistocerca; periplaneta. (cad) anatomia; anatomia animal; artropodos; compuestos organicos; cucaracha; dictyoptera; funcion fisiologica; insectos; invertebrados; langosta (orthoptera); orthoptera; partes del cuerpo; proteinas.
FT : schistocerca gregaria; periplaneta americana.
- (57) **TI : The mechanism of C-20 hydroxylation of α -ecdysone in the desert locust, *Schistocerca gregaria*.**
AU : Johnson, P. (Department of Biochemistry, Liverpool University, L69 3BX (UK)); Rees, H.H.
LA : En
JR : Biochemical Journal (UK). (1977). v. 168(3) p. 513-520.
NO : 36 ref., 2 fig.
CN : Country: XEGB. J (Serial article).
CC : H10 (Pests of plants).

- (58) **Mechanisms and properties of sodium transport in locust rectum.**
 Black, K.; Meredith, J.; Thomson, B.; Phillips, J.; Dietz, T.
 Dep. Zool., Univ. British Columbia, Vancouver, BC, V6T 2A9, Canada.
 Canadian Journal of Zoology 1987. 65 (12): 3084-3092 (32 ref., 6 fig.)
 Language: English Summary Language: French
- (59) **The mid-gut of insects. III. - Functions of the mesenteric cell.**
L'intestin moyen des insectes. III. - Fonctions de la cellule mesenterique.
 Andries, J. C.
 Universite des Sciences et Techniques de Lille, Service de Biologie Animale et Laboratoire Associe au CNRS no. 148 'Endocrinologie des Invertebres', 59655 Villeneuve-d'Ascq, France.
 Annee Biologique 1984. 23 (2): 167-191 (10 pp. of ref.)
 Language: French
- (60) **The modulatory actions of FMRFamide and related peptides on locust [*Schistocerca gregaria*] skeletal muscle.**
 Evans, P. D.; Myers, C. M.
 AFRC Unit of Neurophysiology & Pharmacology, Dep. Zool., Univ. Cambridge, Cambridge, CB2 3EJ, UK.
 Journal of Experimental Biology 1986. 126 403-422 (48 ref., 9 fig.)
 Language: English
- (61) **TI : Ocellar connections with the ventral nerve cord in the locust, *Schistocerca gregaria*: electrical and anatomical characteristics.**
AU : Guy, R.G. (London Univ. (UK). Dept. of Zoology and Comparative Physiology); Goodman, L.J.; Mobbs, P.G.
LA : En
JR : Journal of Comparative Physiology (Germany, F.R.). ISSN 0340-7584. (1977). v. 115(3) p. 337-350.
NO : 9 illus.; 20 ref.; Summary (En).
CM : Country: XEDE. J (Serial article).
LI : E (Summary).
CC : L40 (Animal structure).
- * (62) **TI : Ocellar excitation of the DCMD: an identified locust (*Schistocerca gregaria* (Forsk.) (*S. americana gregaria*)) interneurone.**
AU : Simmons, P.J. (Zoology Department, Downing Street, Cambridge (UK)).
LA : En
JR : Journal of Experimental Biology (UK). (1981). v. 91(1) p. 355-359.
NO : 16 ref., 1 fig.
CM : Country: XEGB. J (Serial article).
CC : H10 (Pests of plants). 4020.
- (63) **Octopamine and cyclic AMP stimulate protein phosphorylation in the central nervous system of *Schistocerca gregaria*.**
 Rotondo, D.; Vaughan, P. F. T.; Donnellan, J. F.
 Dep. Biochem., Univ. Glasgow, Glasgow, G12 8QQ, UK.
 Insect Biochemistry 1987. 17 (2): 283-290 (43 ref., 3 fig.)
 Language: English
- (64) **Octopamine release from an identified neurone in the locust.**
 Morton, D. B.; Evans, P. D.
 Department of Zoology, Cambridge University, Cambridge, CB2 3EJ, United Kingdom.
 Journal of Experimental Biology 1984. 113 269-287 (45 ref., 7 fig.)
 Language: English

- (65) **Octopaminergic modulations of flight muscle in the locust.**
Whim, M. D.; Evans, P. D.
AFRC Unit of Insect Neurophysiol. & Pharmacology, Dep.
Zool., Univ. Cambridge, Cambridge, CB2 3EJ, UK.
Journal of Experimental Biology 1988. 134 247-266 (45
ref., 10 fig.)
Language: English
- *(66) **TI : Osidasic activity of the digestive enzymes of *Schistocerca gregaria* Forsk. New quantitative data. L'activite osidasique des enzymes digestifs de *Schistocerca gregaria* Forsk. Donnees quantitatives nouvelles.**
AU : Strebler, G. (Institut National Agronomique de Paris-Grignon, 75 - Paris (France)).
LA : Fr
JR : Annales de Zoologie Ecologie Animale (France). ISSN 0003-4231. (1978). v. 10(1) p. 85-96.
NO : 33 ref. Summaries (En, Fr).
CN : Country: XEFR. J (Serial article).
LI : E (Summary).
CC : H10 (Pests of plants).
- (67) **Oxygen consumption of locust and cockroach recta in vitro during fluid absorption.**
Sell, D.; Houlihan, D. F.
Department of Zoology, Aberdeen University, United
Kingdom.
Journal of Comparative Physiology, B 1983. 153 (2): 223-2
33 (27 ref., 7 fig.)
Language: English
- (68) **TI : Partial purification and some properties of pyruvate carboxylase from the flight muscle of the locust (*Schistocerca gregaria*).**
AU : Rowan, A.N.; Nesholme, E.A. (Oxford Univ. (UK). Dept. of Biochemistry); Scrutton, M.C.
LA : En
JR : Biochimica et Biophysica Acta - Enzymology (Netherlands). (12 Jan 1978). v. 522(1) p. 270-275.
NO : 18 ref.; Summary (En).
CN : Country: XENL. J (Serial article).
LI : E (Summary).
CC : L50 (Animal physiology and biochemistry). 7800.
- (69) **Peripheral neurosecretory cells on the thoracic median nerves of the locust, *Schistocerca gregaria*.**
Myers, C. M.; Evans, P. D.
Agric. & Food Res. Council, Unit of Insect Neurophysiology
& Pharmacology, Dep. Zool., Univ. Cambridge, Cambridge, CB2
3EJ, UK.
Journal of Morphology 1988. 195 (1): 45-58 (61 ref., 8
fig.)
Language: English
- (70) **Phenyliminoimidazolidine derivatives activate both octopamine1 and octopamine2 receptor subtypes in locust skeletal muscle.**
Evans, P. D.
AFRC Unit of Insect Neurophysiology & Pharmacology, Dep.
Zool., Univ. Cambridge, Cambridge, CB2 3EJ, UK.
Journal of Experimental Biology 1987. 129 239-250 (30
ref., 7 fig.)
Language: English
- *(71) **Ti : Possible involvement of monoamines in the release of adipokinetic hormone in the locust *Schistocerca gregaria*.**
AU : Samaranyaka, M. (Zoology Department, Cambridge, CB2 3EJ (UK)).
LA : En
JR : Journal of Experimental Biology (UK). (1976). v. 65(2) p. 415-425.
NO : 40 ref., 5 fig.
CN : Country: XEGB. J (Serial article).
CC : H10 (Pests of plants).

- * (72) **Presence of an intranuclear crystal in the male germ cells of the South American locust, *Schistocerca pallens* (Acrididae, Cyrtacanthacridinae).**
 Hawkes, F.; Rzepka, J.; Gontrand, G.
 Lab. Optique Electronique CNRS, associe a Univ. Paul Sabatier, 29 rue Jeanne Marvig, 31400 Toulouse, France.
 Cytobios 1987. 52 (208): 23-32 (32 ref., 10 fig.)
 Language: English
- (73) **Probable antidiuretic function of certain neurosecretory cells in the ventral nerve cord in *Oryctes rhinoceros* (Coleoptera: Scarabaeidae).**
 Kannan, S.; Prabhu, V. K. K.
 Dep. Zool., Univ. Kerala, Kariavattom, Trivandrum, 695 581, India.
 Current Science, India 1986. 55 (12): 579-580 (6 ref., 2 fig.)
 Language: English
- (74) **Proline transport and oxidation in short-circuited locust rectum: effect of cAMP.**
 Spring, J.; Phillips, J. E.
 Department of Zoology, British Columbia University, Vancouver, V6T 2A9, Canada.
 Canadian Journal of Zoology 1984. 62 (9): 1732-1736 (15 ref., 4 fig.)
 Language: English Summary Language: French
- (75) **The regulation of locust flight muscle metabolism by octopamine and other compounds.**
 Candy, D.J.
 Insect Biochemistry 8(3):177-181. 1978.
- (76) **Resting potential and potassium-selective electrode measurements in locust [*Schistocerca gregaria*] skeletal muscles.**
 Leech, C. A.
 Dep. Physiol., Univ. Leicester, Leicester, LE1 7RH, UK.
 Journal of Experimental Biology 1986. 122 439-442 (7 ref., 3 fig.)
 Language: English
- (77) **TI : Role of acetylcholine in organophosphate-induced release of adipokinetic hormone in the locust *Schistocerca gregaria*.**
 AU : Samaranyaka, M.
 LA : En
 JR : Pesticide Biochemistry and Physiology (USA). (Jun 1977). v. 7(3) p. 283-288. *NAL (SB951.P49).
 NO : Ref.
 CN : Country: US. J (Serial article).
 CC : H10 (Pests of plants).
- (78) **The role of fast extensor motor activity in the locust kick reconsidered.**
 Heitler, W. J.; Braunig, P.
 Gatty Marine Lab., Dep. Biol. & Pre-Clinical Med., Univ. St. Andrews, Fife, KY16 8LB, UK.
 Journal of Experimental Biology 1988. 136 289-309 (13 ref., 9 fig.)
 Language: English

- (79) TI : Second messengers linked to the muscarinic acetylcholine receptor in locust (*Schistocerca gregaria*) ganglia.
 AU : Duggan, M.J.; Lunt, G.G.
 LA : En
 MS : Insect neurochemistry and neurophysiology, 1986. Borkovec, A.B.; Gelman, D.B. (eds.). *US (DNAL QL495.1535 1986).
 IM : Clifton, N.J. (USA). Humana Press. 1986. p. 251-254. ISBN 08-960- 31195.
 NO : references. Paper presented at the "Second International Conference on Insect Neurochemistry and Neurophysiology (ICINN-86)," August 4-6, 1986, University of Maryland, College Park, Maryland.
 CN : Country: US. B (Monograph).
 CC : L50 (Animal physiology and biochemistry).
 CTES: (iad) schistocerca; acetilcolina; metabolismo; liasas. (cad) artropodos; compuestos organicos; enzimas; funcion fisiologica; insectos; invertebrados; langosta (orthoptera); medicamentos; medicamentos neurotropicos; orthoptera.
 FT : phosphatidylinositols; adenylate cyclase.
- *(80) TI : Sensory feedback in the control of mouthpart movements in the desert locust *Schistocerca gregaria*.
 AU : Seath, I. (Department of Zoology, Oxford University, Oxford (UK)).
 LA : En
 JR : Physiological Entomology (UK). (1977). v. 2(2) p. 147-156.
 NO : 7 ref., 14 fig.
 CN : Country: XEGB. J (Serial article).
 CC : H10 (Pests of plants).
- (81) TI : Sequence analyses of adipokinetic hormones II from corpora cardiaca of *Schistocerca nitans*, *Schistocerca gregaria*, and *Locusta migratoria* by fast atom bombardment mass spectrometry.
 AU : Gade, G.; Goldsworthy, G.J.; Schaffer, M.H.; Cook, J.C.; Rinehart, K.L. Jr.
 LA : En
 JR : Biochemical and biophysical research communications (USA). ISSN 0006-291X. (29 Jan 1986). v. 134(2) p. 723-730. *US (DNAL 442.8 B5236).
 NO : 23 references.
 CN : Country: US. J (Serial article).
 CC : L50 (Animal physiology and biochemistry).
 CTES: (iad) locusta; schistocerca; hormonas; glandulas; propiedades fisico- quimicas/ aminoacidos. (cad) artropodos; compuesto organico del nitrogeno; compuestos organicos; insectos; invertebrados; langosta (orthoptera); orthoptera.
 FT : schistocerca nitens.
- (82) Serotonin-like immunoreactivity in the optic lobes of three insect species.
 Nassel, D. R.; Klemm, N.
 Department of Zoology, Lund University. S-223 62 Lund, Sweden.
 Cell and Tissue Research. 1983. 232 (1): 129-140 (19 ref., 6 fig.)
 Language: English
- (83) TI : Single channel kinetics of a glutamate receptor.
 AU : Kerry, C.J.; Kits, K.S.; Ramsey, R.L.; Sansom, M.S.P.; Usherwood, P.N.R.
 LA : En
 JR : Biophysical journal (USA). ISSN 0006-3495. (Aug 1986). v. 50(2) p. 367-374. *US (DNAL 442.8 B5238).
 NO : references.
 CN : Country: US. J (Serial article).
 CC : L50 (Animal physiology and biochemistry).
 CTES: (iad) schistocerca; acido glutamico; estructura celular. (cad) aditivos; aditivos alimentarios; aminoacidos; artropodos; compuesto organico del nitrogeno; compuestos organicos; insectos; invertebrados; langosta (orthoptera); orthoptera; reforzadores de aroma.
 FT : schistocerca gregaria; neurotransmitters.

- (98) TI : The antijuvenilising action of precocene I on *Schistocerca gregaria* (Forsk.).
 Action antijuvenilisante du precocene I sur *Schistocerca gregaria* (Forsk.).
 AU : Chenevert, R. (Departement de Chimie, Universite Laval, Quebec (Canada)); Paquin, R.; Perron, J.M.
 LA : Fr
 JR : Naturaliste Canadien (Canada). (1978). v. 105(5) p. 425-427.
 NO : Summary (En); 3 ref., 2 fig.
 CN : Country: CA. J (Serial article).
 LI : E (Summary).
 CC : H10 (Pests of plants). 4020.
- *(99) TI : Combined proton NMR imaging and spectral analysis of locust embryonic development.
 AU : Gassner, G.; Lohman, J.A.B.
 LA : En
 JR : Proceedings of the National Academy of Sciences of the United States of America (USA). ISSN 0027-8424. (Aug 1987). v. 84(15) p. 5297- 5300. *US (DNAL 500 N21P).
 NO : ill. references.
 CN : Country: US. J (Serial article).
 CC : L50 (Animal physiology and biochemistry).
 CTES: (iad) schistocerca; desarrollo embrionario; espectroscopia rmn. (cad) analisis; analisis quimico; artropodos; desarrollo biologico; espectrometria; funcion fisiologica; insectos; Invertebrados; langosta (orthoptera); metodos; orthoptera.
 FT : schistocerca gregaria.
- *(100) TI : Control of melanization in first instar larvae of *Schistocerca gregaria*.
 AU : Padgham, D.E. (Centre for Overseas Pest Research, London W8 5SJ (UK)).
 LA : En
 JR : Journal of Insect Physiology (UK). (1976). v. 22(10) p. 1409-1419.
 NO : 22 ref., 10 fig.
 CN : Country: XEGB. J (Serial article).
 CC : H10 (Pests of plants).
- (101) Development of the accessory reproductive glands and genital ducts in female *Schistocerca gregaria*.
 Szopa, T. M.
 Journal of Insect Physiology 28(6):475-483. 1982.
- (102) The development of the locust jumping mechanism. I. Allometric growth and its effect on jumping performance.
 Gabriel, J. M.
 Weis-Fogh, T.; Fogh, T. Weis-; Alexander, R. M.; Pennycuick, C. J.; Parker, G. A.
 Department of Zoology, Oxford, United Kingdom.
 Journal of Experimental Biology 1985. 118 313-326 (26 ref., 5 fig.)
 Language: English
- (103) The development of the locust jumping mechanism. II. Energy storage and muscle mechanics.
 Gabriel, J. M.
 Department of Zoology, Oxford, United Kingdom.
 Journal of Experimental Biology 1985. 118 327-340 (10 ref., 7 fig.)
 Language: English
- (104) TI : Distribution of ommochromes in *Schistocerca gregaria* embryos during development.
 AU : Pinamonti, S.; Micciarelli, A. (Ferrara Univ. (Italy). Istituto di Zoologia e Biologia Generale).
 LA : En
 JR : Acta Embryologicae Experimentalis (Italy). ISSN 0065-1184. (1979). (no.3) p. 287-292.
 NO : 4 tables; 10 ref. Summary (En).
 CN : Country: XEIT. J (Serial article).
 LI : E (Summary).
 CC : L50 (Animal physiology and biochemistry). 7900.
 AB : The ommochromes were extracted from heads and abdomens of *S. gregaria* embryos developed in ovo, in explants in vitro of whole embryos and of isolated heads and abdomens and analyzed. In whole embryo explants and in those developed in ovo all ommochromes, known for *S. gregaria*, were identified in later stages of development. In explants of isolated parts only the early appearing ommochromes were found. (EN)

- (105) TI : The dorsal, unpaired, median neurons of the locust (*Schistocerca gregaria*) metathoracic ganglion.
 AU : Hoyle, G.
 LA : En
 JR : Journal of Neurobiology (USA). (Jan 1978). v. 9(1) p. 43-57. *NAL (QP351.J55).
 NO : Ref.
 CN : Country: US. J (Serial article).
 CC : L40 (Animal structure).
- (106) Ecdysone metabolism in *Locusta migratoria* larvae and adults.
 Modde, J. F.; Lafont, R.; Hoffmann, J. A.
 Ecole Normale Supérieure, Laboratoire de Zoologie, ERA CNRS
 1048, 75230 Paris Cedex 05, France.
 International Journal of Invertebrate Reproduction and
 Development 1984. 7 (3): 161-183 (35 ref., 13 fig.)
 Language: English
- (107) TI : Ecdysteroid levels throughout the life cycle of the desert locust, *Schistocerca gregaria*.
 AU : Gande, A.R. (Chemistry Department, Keele University, Staffordshire, ST5 5BG (UK); Morgan, E.D.; Wilson, I.D.
 LA : En
 JR : Journal of Insect Physiology (UK). (1979). v. 25(8) p. 669-675.
 NO : 31 ref., 4 fig.
 CN : Country: XEGB. J (Serial article).
 CC : H10 (Pests of plants). 4020.
- (108) Ecdysteroid titres and location in developing eggs of *Schistocerca gregaria*.
 Scalia, S.; Sbrenna-Micciarelli, A.; Sbrenna, G.; Morgan, E. D. (Micciarelli, A. Sbrenna-)
 Inst. Pharmaceutical Chem., Inst. Zool., Univ. Ferrara, Italy.
 Insect Biochemistry 1987. 17 (1): 227-236 (34 ref., 8 fig.)
 Language: English
- (109) Ecdysteroids in the development eggs of the desert locust, *Schistocerca gregaria*.
 Gande, A.R. y Morgan, E.D.
 Journal of Insect Physiology 25(3):289-293. 1979.
 The effect of exogenous juvenile hormone treatment on embryogenesis in *Schistocerca gregaria*.
 Injeyan, H.S.; Tobe, S.S. y Rapport, E.
 Canadian Journal of Zoology 57(4):838-845. 1979.
- (110) TI : Effect of juvenile hormone analogue on the desert locust *Schistocerca gregaria* (Forskål).
 AU : Qureshi, S.A.; Mohiuddin, S.; Wasti, S.S. (PCSIR Labs., Karachi (Pakistan)).
 LA : En
 JR : Pakistan Journal of Scientific and Industrial Research (Pakistan). (Dec 1982). v. 25(6) p. 234-237.
 NO : 1 ill., 1 table, 28 ref., Summary (En).
 CN : Country: PK. J (Serial article).
 LI : N (Numerical data) E (Summary).
 CC : H10 (Pests of plants). 4020 3882.
- (111) TI : Effect of natural food plants on the development, maturation, fecundity and phase of the desert locust, *Schistocerca gregaria* (Forskål) (*Pennisetum typoides*, bullrush millet, *Sorghum*, *Dipterygium galucum*, *Chrozophora oblongifolia*, *Tribulus longipetalus*, *Zygophyllum simplex*, *Panicum turgidum*).
 AU : Jackson, G.J.; Popov, G.B.; Ibrahim, A.O.; Alghamedi, S.A.; Kahn, A.M.
 CO : Centre for Overseas Pest Research, London (UK).
 LA : En
 IM : London (UK). COPR. 1978. 17 p. ISBN 0-85135-094-1.
 SE : Miscellaneous Reports - Centre for Overseas Pest Research (UK). no. 42. ISSN 0307-9058. *COPR, College House, Wrights Lane, London W8 5SJ (UK).
 NO : 9 ill., 13 tables; 15 ref.
 CN : Country: XEGB. B (Monograph).
 CC : H10 (Pests of plants). 0170 0130 4020.

- * (113) TI : The effects of exogenous juvenile hormone treatment on embryogenesis in *Schistocerca gregaria*.
 AU : Injeyan, H.S. (Department of Zoology, Toronto University, Ontario M5S 1A1 (Canada)); Tobe, S.S.; Rapport, E.
 LA : En
 JR : Canadian Journal of Zoology (Canada). (1979). v. 57(4) p. 838-845.
 NO : 22 ref., 9 fig.
 CN : Country: CA. J (Serial article).
 CC : H10 (Pests of plants).
- (114) TI : The effects of reserpine on haemolymph protein levels and oocyte development in *Schistocerca gregaria* Forsk. Effets de la reserpine sur la proteinemie de l'hemolymph et le developpement ovocytaire chez *Schistocerca gregaria* Forsk.
 AU : Pare, F.; Huot, L. (Universite Laval, Quebec (Canada). Faculte des Sciences et de Genie, Dept. de Biologie).
 LA : Fr
 JR : Entomologia Experimentalis et Applicata (Netherlands). (1978). v. 24(2) p. 111-122.
 NO : 35 ref.; Summaries (En, Fr).
 CN : Country: XENL. J (Serial article).
 LI : E (Summary).
 CC : H10 (Pests of plants).
- * (115) TI : The effects of reserpine on the development and growth of *Schistocerca gregaria* Forsk. during the fourth and fifth nymphal instars. Effets de la reserpine sur le developpement et la croissance de *Schistocerca gregaria* Forsk. au cours des quatrieme et cinquieme stades larvaires.
 AU : Pare, F. (Departement de Biologie, Faculte des Sciences et de Genie, Universite Laval, Quebec G1K 7P4 (Canada)); Huot, L.
 LA : Fr
 JR : Canadian Journal of Zoology (Canada). (1977). v. 55(12) p. 2035- 2041.
 NO : Summary (En); 24 ref., 2 fig.
 CN : Country: CA. J (Serial article).
 LI : E (Summary).
 CC : H10 (Pests of plants). 3150.
- (116) TI : Evolution of the nitrogen and amino-acids composition of the desert locust *Schistocerca gregaria* (Orthoptera, Acrididae) during its development. Evolution de la composition corporelle en azote et en acides amines du criquet pelerin *Schistocerca gregaria* (Orthoptera, Acrididae) au cours de son developpement.
 AU : Touber, F. (Institut National Agronomique Paris-Grignon, 78 - Thiverval-Grignon (France). Lab. de Zoologie-Entomologie).
 LA : Fr
 JR : Annales de la Societe Entomologique de France (France). ISSN 0037- 9271. (Jan-Mar 1981). v.17(1) p. 125-130.
 NO : 20 Ref., Summaries (En, Fr).
 CN : Country: XEFR. J (Serial article).
 LI : E (Summary).
 CC : L50 (Animal physiology and biochemistry) H10. 4020.
- (117) TI : Food value of *Pteridium aquilinum* (Fern, Dennstaedtiaceae) and of *Sasa japonica* (Graminaceae) for fifth instar larvae of *Schistocerca gregaria*. Valeur alimentaire de *Pteridium aquilinum* comparee a celle de *Sasa japonica* pour le cinquieme stade de *Schistocerca gregaria*.
 AU : Aspirot, J.; Lauge, G. (Paris Univ., Orsay (France). Lab. d'Entomologie); Arnoux, J.
 LA : Fr
 JR : Entomologia Experimentalis et Applicata (Netherlands). (1981). v. 29(3) p. 268-280.
 NO : 12 ref.; Summaries (En, Fr).
 CN : Country: XENL. J (Serial article).
 LI : E (Summary).
 CC : H10 (Pests of plants). 4020.

- (118) **Free and conjugated ecdysteroids during the embryogenesis of *Schistocerca gregaria* (Orthoptera, Acrididae).**
Ecdisteroidi liberi e coniugati durante l'embriogenesi di *Schistocerca gregaria* (Orthoptera, Acrididae).
 Atti XIV Congresso Nazionale Italiano di Entomologia sotto gli auspici dell'Accademia Nazionale Italiana di Entomologia, della Societa Entomologica Italiana e della International Union of Biological Sciences. Palermo - Erice - Bagheria, 28 maggio-1 giugno 1985.
 Sbrenna-Micciarelli, A.; Scalia, S.; Gorini, N.; Sbrenna, G. (Micciarelli, A. Sbrenna-)
 Istituto di Zoologia, Universita di Ferrara, 44100 Ferrara, Italy.
 Palermo, Italy; Accademia Nazionale Italiana di Entomologia 1985. 515-521 (11 ref.)
 Language: Italian Summary Language: English
- (119) **The germ-free culture of desert locusts, *Schistocerca gregaria*.**
 Charnley, A. K.; Hunt, J.; Dillon, R. J.
 School of Biological Sciences, University of Bath, Bath, BA2 7AY, United Kingdom.
 Journal of Insect Physiology 1985. 31 (6): 477-485 (50 ref., 2 fig.)
 Language: English
- (120) **TI : The hormonal control of accessory reproductive gland development in female *Schistocerca gregaria*.**
 AU : Szopa, T.M. (Zoology Department, Bristol University, Bristol BS8 1UG (UK)).
 LA : En
 JR : Journal of Insect Physiology (UK). (1981). v. 27(7) p. 441-446.
 NO : 45 ref., 2 fig.
 CN : Country: XEGB. J (Serial article).
 CC : H10 (Pests of plants). 4020.
- (121) **Hormonal regulation of fat body function in vitro.**
 Vafopoulou-Mandalos, X.; Laufer, H. (Mandalos, X. Vafopoulou-)
 Dep. Molecular & Cell Biol., Univ. Connecticut, Storrs, CT 06268, USA.
 London, UK: Academic Press
 Advances in Cell Culture 1987. 5 139-185 (8 pp. of ref., volume edited by K. Maramorosch)
 Language: English
- *(122) **How the locust dries itself**
 Pfluger, H.J. y Burrows, M.
 Journal of Experimental Biology 75:95-100. 1978.
- (123) **TI : The imaginal ecdysis of the desert locust, *Schistocerca gregaria*. IV. The role of the gut.**
 AU : Hughes, T.D. (Department of Zoology, Oxford University (UK)).
 LA : En
 JR : Physiological Entomology (UK). (1980). v. 5(2) p. 153-164.
 NO : 27 ref., 12 fig.
 CN : Country: XEGB. J (Serial article).
 CC : H10 (Pests of plants). 4020.
- *(124) **TI : In vitro action of moulting glands and ecdysterone on the development of the integument of an orthopteroid insect: *Schistocerca gregaria*. Action in vitro des glandes de mue et de l'ecdysterone sur le comportement du tegument larvaire de *Schistocerca gregaria* Forsk, insecte orthopterolde.**
 AU : Caruelle, J.P. (Equipes de Recherches Associees, 75 - Paris (France). Lab. de Cytophysiologie des Arthropodes).
 LA : Fr
 JR : Comptes Rendus Hebdomadaires des Seances de l'Academie des Sciences. Serie D (France). ISSN 0567-655X. (28 Mar 1978). v. 286(12) p. 969-972.
 NO : 5 ill. 10 ref. Summaries (En, Fr).
 CN : Country: XEFR. J (Serial article).
 LI : E (Summary).
 CC : L05 (Animal science) H10. 7900.

- ***(125) TI : Increased juvenile hormone synthesis and decreased fertility in aging *Schistocerca gregaria*.**
AU : Injeyan, H.S. (Department of Zoology, Toronto University, Ontario M5S 1A1 (Canada)); Dale, J.F.; Tobe, S.S.
LA : En
JR : Canadian Journal of Zoology (Canada). (1981). v. 59(9) p. 1744- 1748.
NO : Summary (Fr);20 ref., 2 fig.
CM : Country: CA. J (Serial article).
LI : E (Summary).
CC : H10 (Pests of plants). 4020.
- (126) Influence of male presence on clutch size in *Schistocerca vaga*-Scudder (Orthoptera: Acrididae).**
Okelo, O.
International Journal of Invertebrate Reproduction 1(5):317-321. 1979.
- (127) Inhibition of growth in developing oocytes of the desert locust.**
Tobe, S.S.
Experientia 33(3):343-345. 1977.
- (128) The need for high levels of phenylalanine in the diet of *Schistocerca gregaria* nymphs.**
Bernays, E. A.; Woodhead, S.
Tropical Development and Research Institute, London W8 5Su, United Kingdom.
Journal of Insect Physiology 1984. 30 (6): 489-493 (13 ref., 1 fig.)
Language: English
- (129) Metabolism of maternal ecdysteroid-22-phosphates in developing embryos of the desert locust, *Schistocerca gregaria*.**
Isaac, R. E.; Rees, H. H.
Department of Biochemistry, Liverpool University, PO Box 147, Liverpool, L69 3BX, United Kingdom.
Insect Biochemistry 1985. 15 (1): 65-72 (30 ref., 6 fig.)
Language: English
- (130) Metabolism of [3H]-ecdysone in *Schistocerca gregaria*; formation of ecdysteroid acids together with free and phosphorylated ecdysteroid acetates.**
Gibson, J. M.; Isaac, R. E.; Dinan, L. N.; Rees, H. H.
Department of Biochemistry, Liverpool University, L69 3BX, United Kingdom.
Archives of Insect Biochemistry and Physiology 1984. 1 (4): 385-407 (39 ref., 12 fig.)
Language: English
- (131) TI : Monoamines in the pars intercerebralis-corpora cardiaca complex of locusts (*Schistocerca gregaria*, *Locusta migratoria*).**
AU : Klemm, N.; Falck, B.
LA : En
JR : General and Comparative Endocrinology (USA). (Feb 1978). v. 34(2) p. 180-192. *NAL (444.8 G28).
NO : Ref.
CM : Country: US. J (Serial article).
CC : L40 (Animal structure).
- (132) On metabolic effects of juvenile hormones in the female desert locust *Schistocerca gregaria* Forskal.**
El-Ibrashy, M. T.; Taha, G. Z.; El-Gammal, A. M. (Ibrashy, M. T. El-; Gammal, A. M. El-)
Laboratory of Plant Protection, National Research Centre, Dokki, Cairo, Egypt.
Zoologische Jahrbucher, Abteilung fur Allgemeine Zoologie und Physiologie der Tiere 1985. 89 (3): 383-394 (50 ref., 3 fig.)
Language: English

- (133) **Oxidative metabolism in the locust rectum.**
 Chamberlin, M. E.; Phillips, J. E.
 Department of Zoology, British Columbia University,
 Vancouver, BC V6T 2A9, Canada.
 Journal of Comparative Physiology, B 1983. 151 (1): 191-198 (32 ref., 3 fig.)
 Language: English
- (134) **Primary cultures of muscle from embryonic locusts (*Locusta migratoria*, *Schistocerca gregaria*): developmental, electrophysiological and patch-clamp studies.**
 Duce, J. A.; Usherwood, P. N. R.
 Dep. Zool., Univ. Nottingham, Nottingham, NG7 2RD, UK.
 Journal of Experimental Biology 1986. 123 307-323 (49 ref., 7 fig.)
 Language: English
- (135) **Role of the juvenile hormone on the differentiation of specialized integumental areas, "fenestrae", in *Schistocerca gregaria* (Acrididae: Orthoptera).**
 Sbrenna, G.; Micciarelli-Sbrenna, A. (Sbrenna, A. Micciarelli-)
 Inst. Zool., I-46-44100 Ferrara, Italy.
 Journal of Insect Physiology 1986. 32 (11): 941-953 (43 ref., 21 fig.)
 Language: English
- (136) **Role of vegetation on the rate of hopper development of the desert locust, *Schistocerca gregaria* Forsk.**
 Chavandra, H.
 Indian Journal of Entomology 43(2):191-193. 1981.
- * (137) TI : **Some effects of amputation of the antennae on pigmentation, growth and development in the locust, *Schistocerca gregaria*.**
 AU : Mordue, A.J. (Centre for Overseas Pest Research, London (UK)).
 LA : En
 JR : Physiological Entomology (UK). (1977). v. 2(4) p. 293-300.
 NO : 30 ref., 1 fig.
 CN : Country: XEGB. J (Serial article).
 CC : H10 (Pests of plants).
- (138) **Survival value of Slifer's Patches for locusts at a high temperature.**
 Makings, P.
 Biomedical & Physiol. Res. Group, School Biol. Sci., Univ. College Swansea, Singleton Park, Swansea, SA2 8PP, UK.
 Journal of Insect Physiology 1987. 33 (11): 815-822 (25 ref.)
 Language: English
- (139) TI : **Variations in the water of haemolymphatic lipid content of gregarious *Schistocerca gregaria* (Forsk.) females in relation to duration of flight (Orthoptera: Acridoidea). Modifications de la teneur en eaux et du taux de lipides hemolymphatiques chez les femelles gregaires de *Schistocerca gregaria* (Forsk.) (Orthoptera: Acridoidea) en fonction de la duree des vols.**
 AU : Albrecht, F.O. (Laboratoire d'Evolution des Etres Organises, Paris (France)); Lauge, J.; Lafon-Cazal, M.; Casanova, D.
 LA : Fr
 JR : Comptes Rendus de l'Academie des Sciences Serie 3 Sciences de la Vie (France). ISSN 0249-8313. (28 Apr 1985). v. 300(16) p. 601-606.
 NO : Summaries (Fr, En).
 CN : Country: XEFR. J (Serial article).
 LI : E (Summary).
 CC : H10 (Pests of plants). 4020.

A5. Comportamiento / Behavior

- (140) **Acoustic and vibrational communication in insects.**
Proceedings from the XVII. International Congress of Entomology held at the University of Hamburg, August 1984.
Kalmring, K.; Elsner, N. (Editors)
Fachbereich Biologie-Zoologie der Philipps-Universität Marburg, POB 1929, D-3550 Marburg/Lahn, German Federal Republic.
Berlin: Verlag Paul Parey
1985. viii + 230 pp. (many ref., 130 fig., 246 X 166 mm)
Language: English
- (141) **The activity of a steering muscle in flying locusts [Locusta migratoria and Schistocerca gregaria].**
Elson, R.; Pflüger, H. J.
Department of Zoology, University of Cambridge, Cambridge, CB2 3EJ, United Kingdom.
Journal of Experimental Biology 1986. 120 421-441 (38 ref., 13 fig.)
Language: English
- *(142) **TI : Allatectomy and sexual receptivity in females of Schistocerca gregaria.**
AU : Strong, L. (Department of Zoology, Bristol University, BS8 1UG (UK)); Amerasinghe, F.P.
LA : En
JR : Journal of Insect Physiology (UK). (1977). v. 23(1) p. 131-135.
NO : 28 ref.
CN : Country: XEGB. J (Serial article).
CC : H10 (Pests of plants).
- (143) **Behaviour of desert locust (Schistocerca gregaria Forsk.) swarm during October 1978 in Rajasthan (India).**
Chandra, H.; Amar Singh; Dharampal Singh (Singh, A.; Singh, D.)
Field Station for Investigations on Locusts, Bikaner, India.
Plant Protection Bulletin, India 1981, publ. 1983. 33 (3/4): 103-106 (11 ref.)
Language: English
- (144) **Comportement de vol et facteurs climatiques chez des acridiens migrants.**
Michel, R. y Albrecht, F.O.
Behaviour 67(3/4): 208-216. 1978.
- *(145) **Contribution of compound eyes and ocelli to steering of locusts in flight. I. Behavioural analysis.**
Taylor, C.P.
Journal of Experimental Biology 93:1-18. 1981.
- (146) **Control of hindlimb posture by wind-sensitive hairs and antennae during locust flight.**
Arbas, E. A.
Arizona Res. Lab., Div. Neurobiol., 611 Gould-Simpson Sci. Building, Univ. Arizona, Tucson, AZ 85721, USA.
Journal of Comparative Physiology, A 1986. 159 (6): 849-957 (46 ref., 6 fig.)
Language: English
- (147) **The control of walking in Orthoptera. II. Motor neurone activity in normal free-walking animals.**
Burns, M.D. y Usherwood, P.N.R.
Journal of Experimental Biology 79:69-98. 1979.

- * (148) **TI : Changes in reproductive parameters in aging females of solitary phase *Schistocerca gregaria*.**
AU : Dale, J.F. (Department of Zoology, Toronto University, Ontario M5S 1A1 (Canada)); Injevan, H.S.; Tobe, S.S.
LA : En
JR : Canadian Journal of Zoology (Canada). (1982). v. 60(3) p. 466-489.
NO : Summary (Fr); 10 ref., 1 fig.
CN : Country: CA. J (Serial article).
LI : E (Summary).
CC : L50 (Animal physiology and biochemistry). 7000.
- (149) **Detection of the horizon during flight by locust dorsal ocelli. [Abstract].**
Proceedings, 2nd Triennial Meeting, Pan American
- (150) **Acridological Society, Bozeman, Montana, USA, 21-25 July, 1979 [edited by Tyrkus, M.; Cantrall, I.J.; Carbonell, C.S.].**
Taylor, C. P.
Tyrkus, M.; Cantrall, I. J.; Carbonell, C. S.; Pan American Acridological Society
Department of Physiology, Tulane University School of Medicine, New Orleans, Louisiana 70112, USA.
Ann Arbor, Michigan, USA; Edward Brothers
1983. 107
Language: English
- (151) **The effects of wilting in palatability of plants to *Schistocerca gregaria*, the desert locust.**
Bernays, E. A.; Lewis, A. C.
Dep. Entomological Sci., Univ. California, Berkeley, CA 93709, USA.
Oecologia 1986. 70 (1): 132-135 (18 ref., 2 fig.)
Language: English
- (152) **Endocrine manipulations, juvenile hormone and ontogenesis of male sexual behaviour in locusts.**
Pener, M. P.; Shalom, U.
Dep. Zool., Hebrew Univ. Jerusalem, Jerusalem 91904 Israel.
Insect Biochemistry 1987. 17 (7): 1109-1113 (17 ref., 1 fig.)
Language: English
- (153) **Faeces as a source of a locust gregarisation stimulus. Effects on social aggregation and on cuticular colour of nymphs of the desert locust, *Schistocerca gregaria* (Forsk.).**
Gillett, S.D. y Phillips, M.L.
Acrida 6(4):279-286. 1977.
- (154) **Feeding behaviour of the desert locust (*Schistocerca gregaria* F.) in relation to nutritional values of some food plants.**
Chandra, S.
Directorate of Plant Protection Quarantine & Storage, NH IV, Faridabad, India.
Plant Protection Bulletin, India 1985. 37 (2): 25-30 (14 ref.)
Language: English
- (155) **Feeding behavior: selection of both wet and dry food for increased growth in *Schistocerca gregaria* nymphs.**
Lewis, A. C.; Bernays, E. A.
Centre for Overseas Pest Research, London, W8 5SJ, United Kingdom.
Entomologia Experimentalis et Applicata 1985. 37 (2): 105-112 (23 ref., 4 fig.)
Language: English Summary Language: French
- (156) **Food consumption, assimilation and growth in *Schistocerca gregaria* (Forsk.).**
Kayed, A. N.
Zool. Dep., Fac. Sci., Alexandria Univ., Egypt.
Bulletin de la Societe Entomologique d'Egypte 1982/1983. publ. 1985. (No. 64): 183-190 (24 ref.)
Language: English

- (156) **Food selection behaviour of the desert locust *Schistocerca gregaria* Forsk in relation to increasing abundance of food plant(s).**
 Chandra, S.
 Directorate of Plant Protection, Quarantine & Storage, N.H.
 IV, Faridabad, India.
 Plant Protection Bulletin, India 1987. 39 (3): 32-34 (5
 ref., 2 fig.)
 Language: English
- (157) **Food selection by locusts: an analysis of rejection behaviour.**
 Blaney, W. M.; Winstanley, C.; Simmonds, M. S. J.
 Department of Zoology, Birkbeck College, London, WC1E 7HX,
 United Kingdom.
 Entomologia Experimentalis et Applicata 1985. 38 (1): 35-
 40 (25 ref., 1 fig.)
 Language: English Summary Language: French
- * (158) TI : **The imaginal ecdysis of the desert locust, *Schistocerca gregaria*. I. A description of the behaviour.**
 AU : Hughes, T.D. (Department of Zoology, Oxford University (UK)).
 LA : En
 JR : Physiological Entomology (UK). (1980). v. 5(1) p. 47-54.
 NO : 26 ref., 3 fig.
 CN : Country: XEGB. J (Serial article).
 CC : H10 (Pests of plants). 4020.
- * (159) TI : **The imaginal ecdysis of the desert locust, *Schistocerca gregaria*. II. Motor activity underlying the pre-emergence and emergence behaviour.**
 AU : Hughes, T.D. (Department of Zoology, Oxford University (UK)).
 LA : En
 JR : Physiological Entomology (UK). (1980). v. 5(1) p. 55-71.
 NO : 27 ref., 11 fig.
 CN : Country: XEGB. J (Serial article).
 CC : H10 (Pests of plants). 4020.
- * (160) TI : **The imaginal ecdysis of the desert locust, *Schistocerca gregaria*. III. Motor activity underlying the expansional and post-expansional behaviour.**
 AU : Hughes, T.D. (Department of Zoology, Oxford University (UK)).
 LA : En
 JR : Physiological Entomology (UK). (1980). v. 5(2) p. 141-152.
 NO : 15 ref., 11 fig.
 CN : Country: XEGB. J (Serial article).
 CC : H10 (Pests of plants). 4020.
- (161) **Individual variation of take-off activity in *Schistocerca gregaria* (Forskall). [Abstract].**
 Bergh, J. E.
 Department of Entomology, Uppsala University, Box 561,
 S-751 22 Uppsala, Sweden.
 Acta Entomologica Fennica 1983. 42 23 (2 ref.)
 Language: English
- (162) **The initiation and maintenance of walking in the locust: an alternative to the command concept.**
 Kien, J.
 Abteilung Huber, Max Planck Institut für
 Verhaltensphysiologie, Seewiesen, German Federal Republic.
 Proceedings of the Royal Society of London, B (Biological
 Sciences) 1983. 219 (1215): 137-174 (36 ref., 16 fig.)
 Language: English

- (163) TI : Insect take-off activity as a response to meteorological stimuli effective over long distances (*Schistocerca gregaria*, *Stomoxys calcitrans*, very low frequency electromagnetic fields, VLF EMF, infrasound, cold front).
 AU : Bergh, J.E. (Uppsala Univ. (Sweden). Zoologiska Inst.).
 CO : Uppsala Univ. (Sweden).
 LA : En
 IM : Uppsala (Sweden). Acta Universitatis Upsaliensis. 1985. 27 p. ISBN 91-554-1755-8.
 SE : Comprehensive Summaries of Uppsala Dissertations from the Faculty of Science (Sweden). no. 6. ISSN 0282-7468.
 NO : 35 ref. Summary (En). A dissertation bound with a collection of 5 reprints.
 Degree: Akademisk avhandling (Fil.Dr).
 CN : Country: SE. B (Monograph).
 LI : U (Thesis or diss.) E (Summary).
 CC : L20 (Animal ecology) H10 L72.
 CTES: (iad) apis mellifera; schistocerca; muscidae; migracion/ radiaciones; meteorologia. (cad) abejas; animales; apis; artropodos; ciencias atmosfericas; comportamiento; diptera; estado fisico; hymenoptera; insectos; invertebrados; langosta (orthoptera); orthoptera; polinizadores.
- *(164) Locusts use the same basic motor pattern in swimming as in jumping and kicking.
 Pfluger, H.J. y Burrows, M.
 Journal of Experimental Biology 75:81-93. 1978.
- (165) **Neem kernel suspension as an oviposition deterrent to the desert locust (*Schistocerca gregaria* Forsk.).**
 Brajendra Singh; Singh, A. P. (Singh, B.)
 Directorate Plant Protection, Quarantine & Storage, N.H. IV
 Faridabad, Haryana, India.
 Plant Protection Bulletin, India 1987. 39 (1-2): 9-16 (2
 3 ref.)
 Language: English
- *(166) TI : **Observations on the laboratory take-off behaviour of the desert locust, *Schistocerca gregaria* (Forsk.) (Orthoptera: Acrididae).**
 AU : Lambert, M.R.K. (Centre for Overseas Pest Research, London W8 5SJ (UK)).
 LA : En
 JR : Bulletin of Entomological Research (UK). (1981). v. 71(3) p. 481- 498.
 NO : 23 ref., 7 fig.
 CN : Country: XEGB. J (Serial article).
 CC : H10 (Pests of plants). 4020.
- (167) **A peculiar case of desert locust behaviour.**
 Venkatesh, M. V.; Brajendra Singh (Singh, B.)
 Directorate of Plant Protection, Quarantine & Storage,
 Faridabad, India.
 Plant Protection Bulletin, India 1981, publ. 1983. 33 (3/
 4): 107 (2 ref.)
 Language: English
- (168) Peering a locust behavior pattern for obtaining motion parallax information.
 Collett, T.S.
 Journal of Experimental Biology 76:237-241. 1978.
- *(169) TI : **Pheromonal effects on sexual maturation, yellowing, and the vibration reaction in immature male desert locusts (*Schistocerca gregaria*).**
 AU : Amerasinghe, F.P. (Department of Zoology, Bristol University (UK)).
 LA : En
 JR : Journal of Insect Physiology (UK). (1978). v. 24(4) p. 309-314.
 NO : 17 ref.
 CN : Country: XEGB. J (Serial article).
 CC : H10 (Pests of plants).

- (170) **Physiological factors influencing preference for wet and dry food in *Schistocerca gregaria* nymphs.**
 Roessingh, P.; Bernays, E. A.; Lewis, A. C.
 Tropical Development & Research Institute, London, W8 5SJ,
 United Kingdom.
 Entomologia Experimentalis et Applicata 1985. 37 (1): 89-
 94 (16 ref.)
 Language: English Summary Language: French
- (171) **Preliminary observations of the deterrence/toxicity of kaner (*Nerium indicum* Mill.) against desert locust (*Schistocerca gregaria* F.).**
 Chandra, H.; Thapar, K. L.
 Field Sta. for Investigations on Locusts, Bikaner,
 Rajasthan, India.
 Plant Protection Bulletin, India 1985. 37 (2): 40 (5
 ref.)
 Language: English
- (172) **TI : Preliminary observations on the effects of some plant materials on survival and feeding in the desert locust (*Schistocerca gregaria* Forsk.) (in India).**
 AU : Bhatia, D.R.; Chandra, H.
 LA : En
 MS : **Desert locust field research stations. Technical series. Desert locust project. Progress report.** FAO, Rome (Italy). Plant Production and Protection Div.
 RP : FAO-AGP--DL/TS/18. FAO-AGP--INT/71/030.
 IM : Apr 1976. p. 61-67.
 NO : FAO-ACCESS.No.--37533; 5 tables; 4 ref.; Summary (En).
 CN : Country: XF. R (Report).
 LI : E (Summary) V (Non conventional).
 CC : H10 (Pests of plants). G635.
- (173) **A simple approach to rapid screening of plants for feeding preference in *Schistocerca*.**
 Chandra, S.; Chandra, H.
 Field Station for Investigations on Locusts, Bikaner,
 Rajasthan, India.
 Plant Protection Bulletin, India 1981, publ. 1983. 33 (3/
 4): 177-178 (7 ref.)
 Language: English
- (174) **Some observations on varietal resistance of wheat and bajri to the desert locust (*Schistocerca gregaria* Forsk.).**
 Chandra, H.; Harjai, S. C.; Venkataesh, M. V.
 Field Sta. for Investigations on Locusts, Bikaner, India.
 Plant Protection Bulletin, India 1985. 37 (3-4): 17-19 (6
 ref.)
 Language: English
- (175) **Study of a pocket of the desert locust population in Rajasthan, with special reference to biometrics and behaviour.**
 Harjai, S.C.
 Indian Journal of Entomology 36(4):329-343. 1976.
- (176) **A study of behavioural habituation to a feeding deterrent in nymphs of *Schistocerca gregaria*.**
 Szentesi, A.; Bernays, E. A.
 Research Institute for Plant Protection, Budapest,
 Hungary.
 Physiological Entomology 1984. 9 (3): 329-340 (29 ref.,
 7 fig.)
 Language: English
- (177) **The temperature and photoperiodic control of flight activity in crowded desert locust *Schistocerca gregaria* (Forsk.). II. Changing photoperiods general discussion on the acquired flight ability of locusts.**
 Albrecht, F.O.; Michel, R. y Casanova, D.
 Acrida 7(9):289-298. 1978.

- (178) **An unusual ovipositional behaviour of the desert locust, *Schistocerca gregaria* Forsk.**
 Bhatti, U. S.; Seth, R. K.; Sehgal, S. S.
 Dep. Zool., Univ. Delhi, Delhi-110 007, India.
 Indian Journal of Entomology 1984, recd. 1986. 46 (1): 10
 1-102 (12 ref., 1 fig.)
 Language: English

A6. Ecología / Ecology

- (179) **TI : Adaptations of acridids to low rainfall.**
 AU : Lewis, A.C.; Bernays, E.A.
 LA : En
 MS : 17th conference on agricultural and forest meteorology and 7th conference on biometeorology and aerobiology. *US (DNAL S600.2.C6 1985).
 IM : Boston (USA). The Society. 1985. p. 328-329.
 NO : references.
 CF : (17th Conference on Agricultural and Forest Meteorology and 7th Conference on Biometeorology and Aerobiology. Scottsdale, Ariz. (USA). 21-24 May 1985.)
 CN : Country: US. B (Monograph).
 LI : K (Conference).
 CC : H10 (Pests of plants) P40.
 CTES: (iad) orthoptera; schistocerca; melanoplus; adaptacion fisiologica; lluvia/ relaciones planta agua. (cad) artropodos; funcion fisiologica; insectos; invertebrados; langosta (orthoptera); orthoptera; precipitacion atmosferica; saltamonte.
 FT : schistocerca gregaria; melanoplus differentialis.
- (180) **Comparative biogeography and biology of the South American locust, *Schistocerca cancellata* (Serville), and the South African desert locust, *S. gregaria flaviventris* (Burmeister) (Orthoptera: Acrididae): a review.**
 Waloff, Z.; Pedgley, D. E.
 16a Carlton Road, London, W5 2AW, United Kingdom.
 Bulletin of Entomological Research 1986. 76 (1): 1-20 (6
 0 ref., 9 fig.)
 Language: English
- (181) **TI : Conditioning of nymphs and adults of the desert locust, *Schistocerca gregaria* (Forsk.) to different food plants.**
 AU : Popov, G.B. (Centre for Overseas Pest Research, London W8 5SJ (UK)); Jackson, G.J.; As'ad, A.
 LA : En
 IM : London (UK). Centre for Overseas Pest Research. 1978. 16 p.
 SE : Miscellaneous Report (UK). no. 41.
 NO : 5 ref., 9 fig.
 CN : Country: XEGB. B (Monograph).
 CC : H10 (Pests of plants).
- (182) **TI : Desert locust satellite application project, stage II. Rainfall monitoring in the region of the North-West African Desert Locust Commission in 1976-77. Integrating data from synoptic weather stations and meteorological satellites.**
 AU : Barratt, E.C.
 CO : FAO, Rome (Italy). Plant Production and Protection Div.; FAO, Rome (Italy). Agriculture Dept.
 LA : En, Fr
 RP : FAO-AGP--LCC/77/9. FAO-AGD--RS/4/77.
 IM : May 1977. 63 p.
 NO : FAO-ACCESS.No.--36948; 8 tables, graphs, maps, photographs; 19 ref.
 CN : Country: XF. R (Report).
 LI : V (Non conventional).
 CC : F10 (Meteorology and climatology) H10. G229 G190.
- (183) **TI : Desertification: a climatological perspective (Role of rainfall variations, desert locust plagues, *Schistocerca gregaria*, Africa).**

- AU : Winstanley, D.
 LA : En
 MS : Origin and evolution of deserts. *US (NAL GB611.074 1983).
 IM : Albuquerque (USA). University of New Mexico Press. 1983. p. 185- 211.
 NO : ill., maps. Includes references.
 CN : Country: US. B (Monograph).
 LI : Y (Maps included).
 CC : F10 (Meteorology and climatology) H10. 4020 G100 GZ79.
- (184) TI : Effect of the food plant on gregarisation in the desert locust (*Schistocerca gregaria* (Forsk.)).
 AU : Popov, G.B. (Centre for Overseas Pest Research, London W8 5SJ (UK)); Jackson, G.J.; Ibrahim, A.O.; Alghamedi, S.A.; Khan, A.M.
 LA : En
 IM : London (UK). Centre for Overseas Pest Research. 1978. 14 p.
 SE : Miscellaneous Report. Centre for Overseas Pest Research (UK). no. 40.
 NO : 8 ref., 10 fig.
 CN : Country: XEGB. B (Monograph).
 CC : H10 (Pests of plants).
- (185) Environmental determinations of phase polymorphism of the desert locust, (*Schistocerca gregaria* Forsk.), reared crowded.
 Gillet, S.D.
 Acrida 7(4):267-288. 1978.
- (186) The evolution and ecology of flight: the oceanographic approach. In Dungle, H. ed. Evolution of insect migration and diapause.
 Rainey, R.
 New York, Springer-Verlag, 1978. pp. 33-48.
- (187) House sparrow, *Passer domesticus* (Linnaeus) - a good scout of acridids.
 Chandra, H.
 Field Station for Investigations on Locusts, Bikaner, India.
 Plant Protection Bulletin, India 1984. 36 (1): 32 (4 ref.)
 Language: English
- *(188) TI : Meteorology and desert locust forecasting (*Schistocerca gregaria*).
 AU : Pedgley, D.E. (Centre for Overseas Pest Research, London (UK)).
 LA : En
 JR : Bulletin OEPP (France). (Jan 1983). v. 13(2) p. 239-241.
 NO : Summaries (En, Fr, Ru).
 CF : (Symposium OEPP-OMM sur l'agrometeorologie au service de la protection des plantes. Geneve (Switzerland). 8-10 Mar 1982.)
 CN : Country: FR. J (Serial article).
 LI : K (Conference) E (Summary).
 CC : H10 (Pests of plants) P40.
 CTES: (iad) schistocerca/ insectos daninos; meteorologia; vigilancia; pronostico. (cad) agentes nocivos; animales; animales nocivos; artropodos; ciencias atmosfericas; insectos; invertebrados; langosta (orthoptera); metodos; orthoptera; plagas.
- (189) Monitoring and forecasting major migrant pests: ecology and technology.
 10th International Congress of Plant Protection 1983.
 Volume 1. Proceedings of a conference held at Brighton, England, 20-25 November, 1983. Plant protection for human welfare.
 Rainey, R. C.
 c/o Tropical Development & Research Institute, London W8 5SJ, United Kingdom.
 Croydon, UK; British Crop Protection Council
 1983. 178 (2 ref.)
 Language: English

- (190) **TI : Numerical changes in the desert locust, *Schistocerca gregaria* (Forsk.) in a seasonal breeding area (on the coasts of Eritrea, Ethiopia) with special reference to ecology and behaviour. Locust Control. Desert Locust Programme.**
AU : Roffey, J.; Stower, W.J.
CO : FAO, Rome (Italy). Plant Production and Protection Div.
LA : En
RP : FAO-AGP--DL/TS/24.
IM : 1983. 82 p.
SE : Desert Locust Field Research Stations. Technical Series (FAO). no. 24.
NO : - FAO Accession No: XF8332619 (Available on Microfiche).
CN : Country: XF. B (Monograph).
LI : V (Non conventional).
CC : H10 (Pests of plants). 4020 G136.
FT : desert locusts.
- (191) **Phaseology of a desert locust concentration in relation to habitat.**
Venkatesh, M. V.; Harjai, S. C.
Directorate of Plant Protection, Quarantine & Storage,
Faridabad, India.
Plant Protection Bulletin, India 1981, publ. 1983. 33 (3/4): 61-66 (16 ref., 1 fig.)
Language: English
- (192) **Proceedings of the seminar on agrometeorology and pest forecasting. Fulmer Grange, United Kingdom, 24-28 June 1985.**
(Technical Centre for Agricultural and Rural Cooperation, Netherlands)
Postbus 380, 6700 Wageningen, Netherlands.
Netherlands, Technical Centre for Agricultural and Rural Cooperation
Wageningen, Netherlands; Technical Centre for Agricultural and Rural Cooperation
1985. 129pp. (many ref., many fig., 29X21 cm)
Language: English
- (193) **TI : Satellite rainfall estimation by cloud indexing methods for desert locust survey and control (*Schistocerca gregaria*).**
AU : Barrett, E.C.
LA : En
JR : Proceedings Series - American Water Resources Association (USA). ISSN 0066-1171. (1979). p. 92-100. *US (NAL TC401.A5).
NO : Ill. Includes 28 ref. Presented at the 5th William T. Pecora Memorial Symposium on Remote Sensing, Sioux Falls, South Dakota, June 10-15, 1979.
CN : Country: US. J (Serial article).
CC : F10 (Meteorology and climatology) H10. 4020.
- (194) **Satellite remote sensing, a new dimension in international desert locust [*Schistocerca gregaria* (Forsk.)] survey and control.**
Hielkema, J. U.; Ayyangar, R. S.; Sinha, P. P.
Plant Protection Service, FAO, Rome, Italy.
Plant Protection Bulletin, India 1981, publ. 1983. 33 (3/4): 165-173 (4 fig. (1 col.))
Language: English
- (195) **Screening of some common desert plants for feeding preference in non-gregarious adults of *Schistocerca gregaria* Forsk.**
Chandra, S.
Directorate Plant Protection, Quarantine & Storage.
Faridabad, India.
Plant Protection Bulletin, India 1985. 37 (1): 35-37 (9 ref.)
Language: English
- (196) **Search for antifeedants in some botanicals for desert locust, *Schistocerca gregaria* Forskal.**
Singh, R. P.
Division of Entomology, Indian Agricultural Research Institute, New Delhi-110012, India.
Zeitschrift fur Angewandte Entomologie 1983. 96 (3): 316-319 (17 ref.)
Language: English Summary Language: German

- (197) **Sensing desert locust breeding areas through satellite imageries.**
 Sinha, P. P.; Yadava, V. K.
 Locust Warning Org., Jodhpur, Rajasthan, India.
 Plant Protection Bulletin, India 1985. 37 (1): 27-29 (3 ref., 1 fig.)
 Language: English
- (198) **Some field observations on the plant association of solitary living desert locust hoppers in Western Rajasthan.**
 Chandra, S.
 Directorate Plant Protection, Quarantine & Storage,
 Faridabad, India.
 Plant Protection Bulletin, India 1985. 37 (1): 25-26 (7 ref.)
 Language: English
- (199) **Visual analysis of land satellite imageries with references to growth and decay of vegetation in western Rajasthan.**
 Sinha, P. P.; Chandra, S.
 Directorate of Plant Protection, Quarantine & Storage, N.H. IV, Faridabad, India.
 Plant Protection Bulletin, India 1987. 39 (3): 29-31 (6 ref., 4 fig.)
 Language: English
- (200) **Weather and insect plagues in Africa. Advancing agricultural production in Africa. Proceedings of CAB's First Scientific Conference, Arusha, Tanzania, 12-18 February 1984 [edited by Hawksworth, D.L.].**
 Pedgley, D. E.
 Hawksworth, D. L.
 Tropical Development & Research Institute, London, W8 5SJ, United Kingdom.
 Farnham Royal, Slough, UK; Commonwealth Agricultural Bureaux
 1984. 312-314
 Language: English
- (201) **TI : Weather during desert locust (*Schistocerca gregaria* (Forsk.)) plague upsurges. (Review).**
 AU : Pedgley, D.E. (Centre for Overseas Pest Research, London W8 5SJ (UK)).
 LA : En
 JR : Philosophical Transactions of the Royal Society of London B (UK). (1979). v. 287(1022) p. 387-391.
 NO : 18 ref., 2 fig.
 CN : Country: XEGB. J (Serial article).
 CC : H10 (Pests of plants). 4020.
- (202) **TI : Wild plants in the ecology of the desert locust (*Schistocerca gregaria*).**
 AU : Rainey, R.C.
 LA : En
 JR : Proceedings ... Pest, pathogens, and vegetations (USA). (1980). p. 327-337. *US (NAL SB589.2.P47).
 NO : ill., maps. Includes 3 p. ref.
 CN : Country: US. J (Serial article).
 LI : Y (Maps included).
 CC : H10 (Pests of plants). 4020.

A7. Dinámica de población / Population dynamics

- (203) **Comparison of the annual rates of increase of locusts in relation to the incidence of plagues.**
 Farrow, R. A.; Longstaff, B. C.
 Div. Entomology, CSIRO, GPO Box 1700, Canberra, ACT 2601, Australia.
 Oikos 1986. 46 (2): 207-222 (67 ref., 2 fig.)
 Language: English Summary Language: Russian
- (204) **Desert locust forecasting manual.**
 Pedgley, P.
 London, Centre for Overseas Pest Research, 1981. v.1, 268 p.; v.2, 142 p.

- (205) **Fluctuation of desert locust population in relation to off-season rainfall in Thar desert of Rajasthan during recession of 1963-77.**
 Chandra, H.; Singh, D. P.; Ahluwalia, P. J. S.; Balachandran, G.
 Field Sta. for Investigations on Locusts, Nagniji Road, Bikaner, Rajasthan, India.
 Bulletin of Entomology 1985. 26 (2): 166-201 (14 ref., 4 fig.)
 Language: English
- (206) **El Problema de la langosta: situación en 1988 y perspectivas para 1989. Situación actual.**
 94 Período de Sesiones de la FAO. 1988.
 Roma, FAO, 1988. 7 p.
- (207) **A study on the eye-stripes and sex composition in a concentration of desert locust (*Schistocerca gregaria* Forsk.) with special reference to habitat.**
 Venkatesh, M. V.; Harjai, S. C.
 Roonwal, M. L.
 Field Sta. for Investigations on Locusts, Bikaner, Rajasthan, India.
 Plant Protection Bulletin, India 1983. 35 (1/2): 14-20 (10 ref.)
 Language: English
- (208) **Variable-geometry bio-models applied to the monitoring of locust pests.**
Les bio-modeles a geometrie variable appliques a la surveillance des criquets ravageurs.
 Launois, M.
 GERDAT-PRIFAS, Acridologie et Ecologie Operationnelle, BP 5035, 34032 Montpellier, France.
 Agronomie Tropicale 1984. 39 (3): 269-274 (32 ref., 2 fig.)
 Language: French Summary Language: English; Spanish

B. Control de la plaga / Control of pests

B1. General / General

- (209) **Agricultural entomology. Volume II.**
 Srivastava, P. D.; Jotwani, M. G.; Agarwal, R. A.; Wadhwa, S. R.; Bhanotar, R. K.; Bhatnagar, R. K. (Editors)
 32/8, East Patel Nagar, New Delhi-110008, India.
 New Delhi, India; All India Scientific Writers' Society
 1983. 438 pp. (many ref., 232 X 157 mm)
 Language: English
- *(210) TI : Application of a juvenile hormone analogue on the desert locust *Schistocerca gregaria* Forskal by different techniques. Application d'un analogue de l'hormone juvenile sur le criquet Pelerin *Schistocerca gregaria* Forskal effectuee par diferentes techniques.
 AU : Fagoonee, I. (Institut National Agronomique Paris-Grignon, 78 - Thiverval-Grignon (France). Lab. de Zoologie-Entomologie).
 LA : En
 JR : Annales de Zoologie - Ecologie Animale (France). ISSN 0003-4231. (1979). v. 11(2) p. 185-194.
 NO : 17 ref. Summaries (En, Fr).
 CN : Country: XEFR. J (Serial article).
 LI : E (Summary).
 CC : H10 (Pests of plants). 4020.
- (211) TI : Decisive steps towards control of the desert locust (*Schistocerca gregaria* (Forsk.)) 1952-62 (in West Africa).
 AU : Roy, J. (Locust Control + Emergency Operations, FAO, Rome (Italy)).
 LA : En
 JR : Philosophical Transactions of the Royal Society of London B (UK). (1979). v. 287(1022) p. 301-304.
 CN : Country: XEGB. J (Serial article).
 CC : H10 (Pests of plants). 4020 G190.

- (212) TI : East African desert locust threat increasing.
 CO : United States. Central Intelligence Agency. National Foreign Assessment Center.
 LA : En
 IM : Washington (USA). The Center. 1978. 3 p.
 SE : A Research paper - Central Intelligence Agency, National Foreign Assessment Center (USA). *US (NAL SB945.D44U54 1978).
 NO : map. "SI 78-10093". Photoreprint ed.
 CN : Country: US. B (Monograph).
 CC : H10 (Pests of plants). 4020 G132.
 FT : desert locust - africa, eastern; desert locust - control. (en)
- (213) TI : An examination of jojoba (*Simmondsia chinensis*) meal for toxicity or anti-feeding effects on insects (*Schistocerca gregaria*, *Spodoptera littoralis*).
 AU : Barlow, F.
 LA : En
 JR : Jojoba Happenings (USA). (Jun 1978). v. 23 p. 6-9. *NAL (SB299.J6J6).
 CW : Country: US. J (Serial article).
 CC : H10 (Pests of plants). 0390.
- (214) Progress of the campaign against locusts and grasshoppers.
 Food & Agric. Org. United Nations, Rome, Italy.
 Food and Agriculture Organization
 Conference, Food and Agriculture Organization of the United Nations, Rome 1987. (C 87/22): 9pp.
 Language: English
- (215) Rann of kutch a trap for the locust.
 Charan Singh y Jaswant Singh.
 Indian Journal of Entomology 39(1):23-28. 1977.
- (216) TI : (Role of FAO in improving plant protection against pests specifically against migratory locust, and scope of training courses). Le role de la FAO sur l'avancement de la protection des vegetaux contre les ennemis des cultures particulierement le criquet pelerin, et le but des cours de formation.
 AU : Roy, J.
 CO : FAO, Rome (Italy).
 LA : Fr
 IM : Rome (Italy). FAO. (1978). 29 p.
 NO : FAO-ACCESS.No.--41146; Summary (Fr).
 CN : Country: XF. B (Monograph).
 LI : E (Summary) V (Non conventional).
 CC : H10 (Pests of plants). 1300 GO21.
 AB : Review of FAO's role in improving vegetables protection w.spec.ref.to the targets of training courses in pest control of *schistocerca gregaria*. (EN)
 FT : working paper; pests of plants; plant protection; insect control; migratory locust. (en)

B2. Control Químico / Chemical control

- (217) The actions of pyrethroids upon the peripheral nervous system and associated organs in the locust.
 Clements, A.N. y May, T.E.
 Pesticide Science 8(6):661-680. 1977.
- (218) Anti-locust operations in India during 1983.
 Paharia, K. D.; Rajak, R. L.; Chandra, S.
 Directorate of Plant Protection, Quarantine & Storage.
 Faridabad, Haryana, India.
 Plant Protection Bulletin, India 1984. 36 (4): 1-3 (3 ref.)
 Language: English
- (219) A case of rapid phase transformation in desert locust, *Schistocerca gregaria* F., due to insecticidal control.
 Chandra, R.; Srinivasa, M. V.; Chauhan, A. K.
 D.S. College, Aligarh, Uttar Pradesh, India.
 Plant Protection Bulletin, India 1982, publ. 1983. 34 (3/4): 9-12 (9 ref.)
 Language: English

- (220) **Criteria for choosing application techniques for desert locust control.**
 Courshee, R. J.
 International Centre for the Application of Pesticides,
 Cranfield Institute of Technology, Cranfield, Bedford, MK43
 OAL, United Kingdom.
 Bulletin, Organisation Europeenne et Mediterraneenne pour
 la Protection des Plantes 1983. 13 (3): 535-540 (1 ref.)
 Language: English Summary Language: French; Russian
- (221) **DDT-dehydrochlorinae from desert locust Schistocerca gregaria Forskal.**
 Nath, A. y Mehrotra, K.N.
 Indian Journal of Experimental Biology 15(8):665-666. 1977.
- (222) **TI : (Desert locust field research stations. Technical series. Delayed effects of local application of a new substance at sublethal doses on development and reproduction of desert locust: Schistocerca gregaria Forsk). (Desert locust programme. Progress report). Stations de recherche acridienne sur le terrain. Series techniques. Effets differes a doses sublethales d'une application topique d'une nouvelle substance sur le developpement et la reproduction du criquet pelerin: Schistocerca gregaria Forsk. Programme relatif au criquet pelerin. Rapport sur l'avancement des travaux.**
 AU : Hefraoui, A.
 CO : FAO, Rome (Italy). Plant Production and Protection Div.; Paris-11 Univ., 91 - Orsay (France). Faculte des Sciences.
 LA : Fr
 RP : FAO-AGP--DL/TS/18.
 IM : 1978. 95 p.
 NO : FAO-ACCESS.No.--41945; Includes discussion; Tables, graphs, photographs; Bibliography p. 79-84 (91 ref.); Summary (Fr). Degree: These (Docteur-Ingenieur en sciences naturelles).
 CN : Country: XF. R (Report).
 LI : U (Thesis or diss.) Z (Bibliography) E (Summary) V (Non conventional).
 CC : H10 (Pests of plants).
 AB : Description of laboratory research methods and research results viz. short term and long term effects on larvae life cycle, insect physiology and oviposition of sublethal doses of 1-(2,6- difluorobenzoyl), 3-(4-chlorophenyl)-urea applied at metathoracic and fifth abdominal stigmata. (EN)
 FT : technical paper; thesis; desert locust control; insecticides; urea. (en)
- (223) **TI : Desert locust field research stations. Technical series. Desert locust project. Progress report.**
 CO : FAO, Rome (Italy). Plant Production and Protection Div.
 LA : En
 RP : FAO-AGP--DL/TS/20.
 IM : Jun 1979. 73 p.
 NO : Includes discussions; Illus., tables, graphs, photographs; 49 ref. - MICROFICHE NO. 8004797-813-E.
 CN : Country: XF. R (Report).
 LI : V (Non conventional).
 CC : H10 (Pests of plants). 4020.
 AB : Results of surveys of Schistocerca gregaria Forsk. and other hoppers population w. spec. ref. to control operations and experimental testing on the toxicity of various insecticides. (EN)
 FT : desert locust control; acrididae; insecticides. (en)
- (224) **Distribution of Cp.p'DDT in the desert locust Schistocerca gregaria Forskal.**
 Nath, A. y Mehrotra, K.N.
 Journal of Entomological Research 4(1):103-104. 1980.
- (225) **Effect of emulsifiers on the toxicity of some insecticides to the hoppers of desert locust (Schistocerca gregaria Forsk.).**
 Chandra, H.
 Field Sta. Investigations on Locusts, Bikaner, Rajasthan,
 India.
 Plant Protection Bulletin, India 1983. 35 (1/2): 25-26 (2 ref.)
 Language: English

- (226) **TI** : The effect of insecticides on osmotic and ionic balance in the locust *Schistocerca gregaria*.
AU : Samaranyaka, M.
LA : En
JR : Pesticide Biochemistry and Physiology (USA). (Dec 1977). v. 7(6) p. 510-516. *NAL (SB951.P49).
NO : Ref.
CN : Country: US. J (Serial article).
CC : H10 (Pests of plants).
- (227) **Effect of neem kernel extract mixed with insecticides on the oviposition and mortality of the desert locust (*Schistocerca gregaria* Forsk.).**
 Brajendra Singh (Singh, B.)
 Directorate of Plant Protection, Quarantine & Storage,
 NHIV, Faridabad, Haryana, India.
 Indian Journal of Plant Protection 1987. 15 (2): 184-187
 (6 ref.)
 Language: English
- (228) **Effect of neem kernel suspension on the development of eggs of desert locust, *Schistocerca gregaria* (Forsk.).**
 Bhanotar, R. K.; Srivastava, Y. N.
 Division of Entomology, Indian Agricultural Research
 Institute, New Delhi 110 012, India.
 Neem Newsletter 1984. 1 (3): 30 (1 ref.)
 Language: English
- (229) **Effect of neem kernel suspension on the hatchability of eggs of the desert locust (*Schistocerca gregaria* Forsk.).**
 Brajendra Singh; Singh, A. P. (Singh, B.)
 Directorate of Plant Protection, Quarantine & Storage, N.H.
 IV Faridabad, Haryana, India.
 Journal of Advanced Zoology 1987. 8 (1): 52-54 (5 ref.)
 Language: English
- (230) **Effect of neem seed oil on consumption, digestion and utilization of maize (*Zea mays* Linn.) by the desert locust, *Schistocerca gregaria* Forskal.**
 Gujar, G. T.; Mehrotra, K. N.
 Div. Entomology, Indian Agric. Res. Inst., New Delhi-110
 012, India.
 National Academy of Sciences Letters, India 1985. 8 (11):
 363-365 (15 ref.)
 Language: English
- (231) **TI** : (Effect of posttreatment temperature on the toxicity of 2 insecticides formulated for larvae at L5 stage *Locusta migratoria migratorioides* R. and F., *Schistocerca gregaria* Forsk. (migratory locust, desert locust; lindane, decamethrine, bioresmethrine)). Influence de la temperature apres le traitement sur la toxicite de deux insecticides formulees a l'egard des larves au stade L5 de *Locusta migratoria migratorioides* R. et F. et de *Schistocerca gregaria* Forsk. (criquet migrateur, criquet pelerin; lindane, decamethrine, bioresmethrine).
AU : Chansigaud, J. (Institut National Agronomique Paris-Grignon, 78 - Thiverval-Grignon (France). Lab. d'Entomologie).
LA : Fr
JR : Phytlatrie-Phytopharmacie (France). ISSN 0031-8876. (Jun 1980). v.29(2) p. 59-67.
NO : 18 Ref., Summary (Fr).
CN : Country: XEFR. J (Serial article).
LI : E (Summary).
CC : H10 (Pests of plants). 4020 3877.
- (232) **Effect of precocene II and cycloheximide on flight and coxal muscles respiratory metabolism in the desert locust, *Schistocerca gregaria* Forsk.**
 Salem, M. S.; Eid, M. A.; El-Ibrashy, M. T.; Abdel-Hamid, M. (Ibrashy, M. T. El.; Hamid, M. Abdel-)
 Dep. Economic Entomology & Pesticides, Fac. Agric., Cairo
 Univ., Egypt.
 Bulletin of the Entomological Society of Egypt, Economic
 Series 1982/1983, publ. 1985. (No. 13): 117-125 (18 ref.)
 Language: English

- (233) **Effect of precocene II and cycloheximide on the rate of the fat body respiratory metabolism in the adult female desert locust, *Schistocerca gregaria* Forsk.**
 Salem, M. S.; Eid, M. A.; El-Ibrashy, M. T.; Abdel-Hamid, M. (Ibrashy, M. T. El-; Hamid, M. Abdel-)
 Dep. Economic Entomology & Pesticides, Fac. Agric., Cairo Univ., Egypt.
 Bulletin of the Entomological Society of Egypt, Economic Series 1982/1983, publ. 1985. (No. 13): 107-115 (21 ref.)
 Language: English
- (234) **Effect of precocene II, cycloheximide and C1G-JH on the growth rate and adult morphometrics of *Schistocerca gregaria* Forsk.**
 Eid, M. A.; Salem, M. S.; El-Ibrashy, M. T.; Abdel-Hamid, M. (Ibrashy, M. T. El-; Hamid, M. Abdel-)
 Dep. Economic Entomology & Pesticides, Fac. Agric., Cairo Univ., Egypt.
 Bulletin of the Entomological Society of Egypt, Economic Series 1982/1983, publ. 1985. (No. 13): 95-105 (20 ref.)
 Language: English
- (235) **The effects of chemical and physical stress on the concentrations of amino compounds in the haemolymph and nervous system of locusts and cockroaches.**
 Jabbar, A.; Strang, R. H. C.
 Department of Biochemistry, University of Glasgow, United Kingdom.
 Journal of Insect Physiology 1985. 31 (5): 359-370 (34 ref., 4 fig.)
 Language: English
- (236) **Evaluation of citicide against the desert locust *Schistocerca gregaria* Forsk.**
 Chandra, H.; Thapar, K. L.
 Field Sta. for Investigations on Locusts, Bikaner, Rajasthan, India.
 Plant Protection Bulletin, India 1985. 37 (1): 43 (2 ref.)
 Language: English
- (237) TI : **The evolution of an aerial application system for the control of the desert locusts (*Schistocerca gregaria* (Forsk.)) (in Eastern Africa) (Review).**
 AU : Joyce, R.J.V. (Cranfield Institute of Technology, Beds. MK43 0AL (UK)).
 LA : En
 JR : Philosophical Transactions of the Royal Society of London B (UK). (1979). v. 287(1022) p. 305-314.
 NO : 17 ref.
 CN : Country: XEGB. J (Serial article).
 CC : H10 (Pests of plants). 4020 G132.
- (238) **Improved DDT formulation for the control of desert locust and grasshoppers.**
 Saxena, V. S.; Bhanotar, R. K.; Srivastava, Y. N.
 Div. Entomology, Indian Agric. Res. Inst., New Delhi-12, India.
 Pesticides 1986. 20 (8): 22-23 (12 ref.)
 Language: English
- (239) **Kinetics of penetration of methyl parathion in desert locust, *Schistocerca gregaria* Forskal.**
 Sethi, G. R.; Garg, A. K.; Bhatia, P.; Bigley, W. S.; Mehrotra, K. N.
 Nuclear Research Laboratory, Indian Agricultural Research Institute, New Delhi-110012, India.
 Journal of Nuclear Agriculture and Biology 1985. 14 (2): 41-42 (24 ref., 1 fig.)
 Language: English

- (240) TI : **Metabolic fate of (14C)dieldrin in *Schistocerca gregaria* with particular reference to the nervous system.**
 AU : Singh, G.J.P. (Department of Zoology and Comparative Physiology, Birmingham University, Birmingham B15 2TT (UK)); Thornhill, R.A.
 LA : En
 JR : *Xenobiotica* (UK). (1980). v. 10(1) p. 57-63.
 NO : 16 ref., 3 fig.
 CN : Country: XEGB. J (Serial article).
 CC : H10 (Pests of plants). 4020.
- (241) **A note on the toxicity/deterrency of active principle of garlic to the desert locust (*Schistocerca gregaria* Forsk.).**
 Thapar, K. L.; Chandra, H.
 Field Station for Investigations on Locusts, Bikaner, India.
 Plant Protection Bulletin, India 1981, publ. 1983. 33 (3/4): 151-152 (7 ref.)
 Language: English
- (242) TI : **penetration of insecticides from solutions into tsetse flies and other insects (DDT, lindane, aldrin, dieldrin, photodieldrin, endosulfan, chlorpyrifos, chlorpyrifos-methyl, fenchlorphos, iodofenphos, OMS-1283, fenitrothion, dichlorvos, *Glossina austeni*, *Glossina morsitans*, *Musca domestica*, houseflies, *Stomoxys calcitrans* stableflies, *Anopheles stephensi*, mosquitoes, *Locusta migratoria*, migratory locusts, *Schistocerca gregaria*, desert locusts, *Blatella germanica*, cockroaches, *Dysdercus fasciatus*, cotton stainer).**
 AU : Hadaway, A.B.; Barlow, F.; Flower, L.S.
 CO : Centre for Overseas Pest Research, London (UK).
 LA : En
 IM : London (UK). COPR. 1978. 14 p. ISBN 0-85135-080-8.
 SE : Miscellaneous Reports - Centre for Overseas Pest Research (UK). no. 22. ISSN 0307-9058. *COPR, College House, Wrights Lane, London W8 5SJ (UK).
 NO : 10 tables; 9 ref.
 CN : Country: XEGB. B (Monograph).
 CC : H00 (PROTECTION OF PLANTS AND STORED PRODUCTS) L72. 3877 4020.
- (243) **Relative toxicity of some insecticides to female adults of *Schistocerca gregaria* Forsk.**
 Brajendra Singh; Singh, A. P. (Singh, B.)
 Directorate Plant Protection, Quarantine & Storage, NH IV, Faridabad, Haryana, India.
 Plant Protection Bulletin, India 1985. 37 (3-4): 13-14 (13 ref.)
 Language: English
- * (244) Report on the use of alternative insecticides for locust control.
 FAO
 Rome, 1978. 39 p.
- (245) TI : **(Response of the larvae of *Schistocerca gregaria* (Forsk.) to diflubenzuron (Insecticide)). Sensibilité des larves de *Schistocerca gregaria* (Forsk.) à l'égard du diflubenzuron (insecticide).**
 AU : Chansigaud, J. (INRA, 78 - Thiverval-Grignon (France). Lab. d'Acridologie Appliquée).
 LA : Fr
 JR : *Phytiatrie Phytopharmacie* (France). ISSN 0031-8878. (Dec 1977). v. 26(4) p. 269-278.
 NO : 6 ref. Summary (Fr).
 CN : Country: XEFR. J (Serial article).
 LI : E (Summary).
 CC : H10 (Pests of plants).
- (246) TI : **Some simple field tests with decamethrin and propoxur against locust nymphs (in Somalia), (*Schistocerca gregaria*).**
 AU : MacCuaig, R.D.; Amisi, J.L.
 LA : En
 MS : **Desert locust field research stations. Technical series. Desert locust project. Progress report.** FAO, Rome (Italy). Plant Production and Protection Div.
 RP : FAO-AGP--DL/TS/20.
 IM : Jun 1979. p. 68-71.
 NO : Includes discussion - MICROFICHE NO. 8004797-813-E.
 CN : Country: XF. R (Report).
 LI : V (Non conventional).
 CC : H10 (Pests of plants). 4020 3877 G144.
 FT : **desert locust control; somalia; locusts; insecticides. (en)**

- *(247) TI : Studies on the biological effects of diflubenzuron (TH-6040) on the desert locust (*Schistocerca gregaria* Forskal).
 AU : Marly, F.M.A. (Department of Plant Protection, Faculty of Agriculture, Ain Shams University (Egypt)); Hussein, E.M.K.; El- Guindy, M.A.; Ibrahim, E.E.H.
 LA : En
 JR : International Pest Control (UK). (1981). v. 23(5) p. 133-135.
 NO : 10 ref., 1 fig.
 CN : Country: XEGB. J (Serial article).
 CC : H10 (Pests of plants). 4020 3877.
- (248) TI : Susceptibility of locusts (*Schistocerca gregaria*) following three sub-lethal treatments of late nymphal instars and adult stage.
 AU : El-Refai, A.; Leheta, M.F.; Harb, M.F.
 LA : En
 MS : Desert locust field research stations. Technical series. Desert locust project. Progress report. FAO, Rome (Italy). Plant Production and Protection Div.
 RP : FAO-AGP--DL/TS/20.
 IM : Jun 1979. p. 1-9.
 NO : Includes discussion; 3 tables, graphs; 17 ref.; Summary (En) - MICROFICHE NO. 8004787-813-E.
 CN : Country: XF. R (Report).
 LI : E (Summary) V (Non conventional).
 CC : H10 (Pests of plants). 4020.
 FT : desert locust control; insecticides; schistocerca gregaria. (en)
- (249) TI : Tests with carbofuran against locusts (*Schistocerca gregaria*) and domestic animals.
 AU : MacCuaig, R.D.
 LA : En
 MS : Desert locust field research stations. Technical series. Desert locust project. Progress report. FAO, Rome (Italy). Plant Production and Protection Div.
 RP : FAO-AGP--DL/TS/20.
 IM : Jun 1979. p. 47-59.
 NO : Includes discussion; 4 tables, graphs, photographs; 6 ref. - MICROFICHE NO. 8004797-813-E.
 CN : Country: XF. R (Report).
 LI : V (Non conventional).
 CC : H10 (Pests of plants). 3877 4020.
 FT : insect control; toxicity; insecticides; carbofuran; locusts; domestic animals. (en)
- (250) TI : Toxicity of surface deposits of insecticides to first instar nymphs of the desert locust, *Schistocerca gregaria* (Forsk.) (in Ethiopia).
 AU : MacCuaig, R.D.; Beine, A.; Demeke, S.; Sahle, G.
 LA : En
 MS : Desert locust field research stations. Technical series. Desert locust project. Progress report. FAO, Rome (Italy). Plant Production and Protection Div.
 RP : FAO-AGP--DL/TS/20.
 IM : Jun 1979. p. 60-67.
 NO : Includes discussion; 3 tables; 3 ref. - MICROFICHE NO. 8004797-813-E.
 CN : Country: XF. R (Report).
 LI : V (Non conventional).
 CC : H10 (Pests of plants). 4020 3877 G136.
 FT : desert locust control; toxicity; ethiopia; schistocerca gregaria; insecticides. (en)
- (251) TI : Toxicity tests with lindane, fenitrothion and permethrin against *Schistocerca gregaria* (Forsk), the desert locust.
 AU : Siddiqui, S.U. (Dept. of Plant Protection, Karachi (Pakistan)).
 LA : En
 JR : Pakistan Journal of Agricultural Research (Pakistan). ISSN 0251- 0480. (Jun 1981). v. 2(2) p. 134-136.
 NO : 10 ref.; Summary (En).
 CN : Country: PK. J (Serial article).
 LI : E (Summary).
 CC : H00 (Protection of plants and stored products). 4020 3877.

- (252) TI : Toxicological, behavioural, symptomatic and histopathological effects of isopropoxy phosphine oxide on the migratory locust (*Locusta migratoria*) and desert locust (*Schistocerca gregaria*).
 AU : Qureshi, S.A.; Mohiuddin, S. (PCSIR Labs., Karachi (Pakistan)).
 LA : En
 JR : Pakistan Journal of Scientific and Industrial Research (Pakistan). (Dec 1977). v. 20(6) p. 362-365.
 NO : 38 ref. Summary (En).
 CN : Country: PK. J (Serial article).
 LI : E (Summary).
 CC : H10 (Pests of plants). 7900.
- (253) TI : Toxicological studies on a pest of family Acrididae (*Schistocerca gregaria* Forskal) (Egypt).
 AU : Metaweh, H.H.H.
 CO : Zagazig Univ. (Egypt). Faculty of Agriculture.
 LA : En
 IM : Zagazig(Egypt). 1985. 91 p.
 NO : 9 ill. 5 fig. 25 tables; ref. p. 134-148; Summaries (Ar, En); *Library, Faculty of Agriculture, Zagazig Univ., Egypt. Degree: Thesis (M.Sc. in Pesticides).
 CN : Country: EG. B (Monograph).
 LI : N (Numerical data) U (Thesis or diss.) Z (Bibliography) E (Summary) V (Non conventional).
 CC : H10 (Pests of plants).
 CTES: (iad) schistocerca; insectos daninos; egipto/ toxicologia; nilaparvata; cercopidae; insecticidas; mortalidad; fecundidad. (cad) africa; africa del norte; agentes nocivos; animales; animales nocivos; artopodos; estadisticas vitales; funcion fisiologica; hemiptera; homoptera; insectos; invertebrados; langosta (orthoptera); oriente medio; orthoptera; plagas; plaguicidas; productos quimicos agricolas; propiedades biologicas; reproduccion; reproductividad; salud.

B3. Control Biológico / Biological control

- (254) TI : Cellular immune reactions in the desert locust *Schistocerca gregaria* infected by the fungus *Metarhizium anisopliae* (haemocytic reaction).
 AU : Gunnarsson, S. (Uppsala Univ. (Sweden). Zoologiska Inst.).
 CO : Uppsala Univ. (Sweden).
 LA : En
 IM : Uppsala (Sweden). Uppsala Univ. 1987. 35 p. ISBN 91-554-2032- X.
 SE : Comprehensive Summaries of Uppsala Dissertations from the Faculty of Science (Sweden). no. 81. ISSN 0282-7468.
 NO : 48 ref. Summary (En). A dissertation based on 4 separately published papers. Degree: Akademisk avhandling.
 CN : Country: SE. B (Monograph).
 LI : U (Thesis or diss.) E (Summary).
 CC : H20 (Plant diseases) H10.
 CTES: (iad) metarhizium; schistocerca; infecciones; respuesta inmunologica/ enfermedades fungosas; insectos daninos. (cad) agentes nocivos; animales; animales nocivos; artopodos; enfermedades; epidemiologia; fungi; hongos entomogenos; inmunidad; insectos; invertebrados; langosta (orthoptera); organismos para control biologico; orthoptera; plagas; plantas; transmision de enfermedades.
- (255) "Dark cheeks," a lethal disease of locust provoked by a lepidopterous baculovirus.
 Bensimon, A.; Zinger, S.; Gerassi, E.; Hauschner, A.; Harpaz, I.; Sela, I.
 Fac. Agric., Hebrew Univ. Jerusalem, Rehovot 76100, Israel.
 Journal of Invertebrate Pathology 1987. 50 (3): 254-260
 (7 ref., 5 fig.)
 Language: English
- (256) Impact of reptiles on food production and environment. Non-insect pests and predators. Proceedings of the National Symposium on 'Impact of Non-insect Pests and Predators on Food Production and Environment', held from March 12-14, 1984 [edited by Bhanotar, R.K.; Verma, S.; Farooqi, S.I.].
 Bhanotar, R. K.; Srivastava, Y. N.
 Div. Entomology, Indian Agric. Res. Inst., New Delhi, India.
 New Delhi, India; All India Scientific Writers' Society 1985. 116-120, 265-266 (11 ref.)
 Language: English

- *(257) TI : Influence of host nutrients on the parasitic development of *Mermis nigrescens* (Mermithidae) (Nematode for biological control of the desert locust (*Schistocerca gregaria*)).
 AU : Craig, S.M.; Webster, J.M.
 LA : En
 JR : Journal of Nematology (USA). ISSN 0022-300X. (Jul 1982). v. 14(3) p. 398-405. *US (NAL QL391.N4J62).
 NO : ill. 15 ref.
 CN : Country: US. J (Serial article).
 CC : H10 (Pests of plants). 4020.
- (258) Inhibition of *Metarhizium anisopliae* by the gut bacterial flora of the desert locust, *Schistocerca gregaria*: evidence for an antifungal toxin.
 Dillon, R. J.; Charnley, A. K.
 School Biol. Sci., Univ. Bath, Bath, Avon, BA2 7AY, UK.
 Journal of Invertebrate Pathology 1986. 47 (3): 350-360
 (39 ref., 3 fig.)
 Language: English
- (259) TI : Invasion of the pathogenic fungus *Metarhizium anisopliae* through the guts of germ-free desert locusts, *Schistocerca gregaria*.
 AU : Dillon, R.J. (Bath Univ. (UK). School of Biological Sciences); Charnley, A.K.
 LA : En
 JR : Mycopathologia (Netherlands). (1986). v. 96(1) p. 59-66.
 NO : 26 refs.; Summary (En).
 CN : Country: NL. J (Serial article).
 LI : E (Summary).
 CC : H10 (Pests of plants) H20.
 CTES: (jad) metarhizium; schistocerca/ toxinas; intestinos; transmision de enfermedades. (cad) agentes nocivos; anatomia; anatomia animal; artropodos; epidemiologia; fungi; hongos entomogenos; insectos; invertebrados; langosta (orthoptera); organismos para control biologico; orthoptera; partes del cuerpo; plantas; sistema digestivo; sustancias toxicas.
- (260) Locust as prey: factors affecting their vulnerability to predation.
 Gillett, S.D. y Gonta, E.
 Animal Behaviour 26(1):282-289. 1978.
- (261) Mechanism of insect control by nematodes.
 Non-insect pests and predators. Proceedings of the National Symposium on 'Impact of Non-insect Pests and Predators on Food Production and Environment', held from March 12-14, 1984 [edited by Bhanotar, R.K.; Verma, S.; Farooqi, S.I.].
 Swarup, G.; Rajan
 Div. Nematology, Indian Agric. Res. Inst., New Delhi, India.
 New Delhi, India: All India Scientific Writers' Society 1985. 49-59, 254-258 (74 ref.)
 Language: English
- (262) A new record of a protozoan pathogen, *Nosema locustae* Canning infecting desert locust from Rajasthan.
 Srivastava, Y. N.; Bhanotar, R. K.
 Division of Entomology, Indian Agricultural Research Institute, New Delhi-110012, India.
 Indian Journal of Entomology 1983, recd. 1985. 45 (4): 500-501 (5 ref.)
 Language: English
- (263) Notes on biology and ecology of nymphal and adult parasites of grasshoppers in Pakistan.
 Irshad, M.; Ali, R.; Mohyuddin, A. I.
 Pakistan Sta. Commonwealth Inst. of Biol. Control, Murree Rd., P.O. Box 8, Rawalpindi, Pakistan.
 Pakistan Journal of Zoology 1985. 17 (2): 173-177 (11 ref.)
 Language: English
- (264) TI : Predation of desert locust (*Schistocerca gregaria* Forsk.) by a tenebrionid beetle, *Pimella indica* Sen.
 AU : Chandra, H.; Ahluwalia, P.J.S.

- LA : En
 MS : Desert locust field research stations. Technical series. Desert locust project.
 Progress report. FAO, Rome (Italy). Plant Production and Protection Div.
 RP : FAO-AGP--DL/TS/20.
 IM : Jun 1979. p. 40.
 NO : 5 ref. - MICROFICHE NO. 8004797-813-E.
 CN : Country: XF. R (Report).
 LI : V (Non conventional).
 CC : H10 (Pests of plants). 4020.
 FT : desert locust control; schistocerca gregaria; beetles; entomophagous insects. (en)
- *(265) TI : Some effects of *Mermis nigrescens* on the haemolymph of *Schistocerca gregaria*.
 AU : Rutherford, T.A. (Pestology Centre, Department of Biological Sciences, Simon
 Fraser University, Burnaby, Vancouver, British Columbia V5A 1S6 (Canada));
 Webster, J.M.
 LA : En
 JR : Canadian Journal of Zoology (Canada). (1978). v. 56(2) p. 339-347.
 NO : Summary (Fr);38 ref., 4 fig.
 CN : Country: CA. J (Serial article).
 LI : E (Summary).
 CC : H10 (Pests of plants).
- (266) Some lizard predators of acridids of southwest
 Afghanistan.
 Chandra, H.; Charan Singh (Singh, C.)
 Field Station for Investigations on Locusts, Bikaner,
 India.
 Plant Protection Bulletin, India 1981, publ. 1983. 33 (3/
 4): 153-155 (8 ref.)
 Language: English
- (267) Some observations on food habits of two species of lizards
 of western Rajasthan.
 Sinha, P. P.
 Directorate Plant Protection, Quarantine & Storage, NH IV,
 Faridabad, Haryana, India.
 Plant Protection Bulletin, India 1985. 37 (3-4): 35-36 (
 3 ref.)
 Language: English
- (268) Some observations on the feeding behaviour of squirrel
 (*Funambulus* sp.) on locusts.
 Chandra, H.; Chandra, S.
 Field Sta. for Investigations on Locusts, Bikaner,
 Rajasthan, India.
 Plant Protection Bulletin, India 1985. 37 (1): 47 (4
 ref.)
 Language: English
- (269) Studies on predation rate of preying mantid *Mantis*
religiosa L. against desert locust and its biology.
 Srivastava, Y. N.; Bhanotar, R. K.
 Division of Entomology, Indian Agricultural Research
 Institute, New Delhi-110012, India.
 Indian Journal of Entomology 1983, recd. 1985. 45 (4): 34
 8-352 (10 ref.)
 Language: English
- (270) TI : A study of the structure and gliding movement of *Gregarina garnhami* (found in the
 midgut of the desert locust, *Schistocerca gregaria*).
 AU : Walker, M.H.; Mackenzie, C.; Bainbridge, S.P.; Orme, C.
 LA : En
 JR : Journal of Protozoology (USA). ISSN 0022-3921. (Nov 1979). v. 26(4) p. 566-574.
 *US (NAL 439.8 J82).
 NO : Ill. 36 ref.
 CN : Country: US. J (Serial article).
 CC : L05 (Animal science). 4020 4060.

- (271) **Suppression of immune responses of locusts to trypanosomatid flagellates by concomitant mermithid infection.**
 Ibrahim, F. A.; Molyneux, D. H.; Ingram, G. A.
 Dep. Biol. Sci., Univ. Salford, Salford, M5 4WT, UK.
 Journal of Invertebrate Pathology 1986. 48 (2): 252-253
 (9 ref., 1 fig.)
 Language: English
- (272) **Trapping behaviour of *Argiope arcuata* Simon (Araneae: Araneidae) against desert locust (*Schistocerca gregaria* F.).**
 Chandra, H.
 Field Station for Investigations on Locusts, Bikaner,
 Rajasthan, India.
 Plant Protection Bulletin, India 1984. 36 (4): 31 (2
 ref.)
 Language: English
- * (273) **TI : Viability and hatching of *Mermis nigrescens* eggs and subsequent larval penetration of the Desert Locust, *Schistocerca gregaria*.**
AU : Craig, S.M.; Webster, J.M. (Simon Fraser Univ., Vancouver (Canada). Dept. of Biological Sciences, Pestology Center).
LA : En
JR : Nematologica (Netherlands). (Dec 1978). v. 24(4) p. 472-474.
NO : 7 ref.
CN : Country: XENL J (Serial article).
CC : H10 (Pests of plants).

C. Distribución geográfica / Geographic distribution

- (274) **Africa. Important upsurges of migratory locusts.**
 FAO Plant Protection Bulletin 1986. 34 (3): 160
 Language: English
- (275) **Contribution to the faunistic survey of the acridids of the Cape Verde Archipelago (Orth.).**
Contribution a l'inventaire faunistique des acridiens de l'Archipel du Cap-Vert (Orth.).
 Duranton, J. F.; Launois, M.; Launois-Luong, M. H.; L
 ecoq, M. (Luong, M. H. Launois-)
 GERDAT, PO Box 5035, F-34032 Montpellier, France.
 Bulletin de la Societe Entomologique de France 1983. 88 (3/4): 197-224 (52 ref., 2 fig.)
 Language: French
- (276) **TI : Desert locust (*Schistocerca gregaria*) outbreak spreading in East Africa.**
AU : Treakle, H.C.
CO : U.S. Foreign Agricultural Service.
LA : En
JR : Foreign Agriculture - U.S. Foreign Agricultural Service (USA). (17 Jul 1978). v. 16(29) p. 2-3. *NAL (A281.9 F76FO).
CN : Country: US. J (Serial article).
CC : H10 (Pests of plants). G132.
- (277) **The development of desert locust outbreak in the Indo-Pakistan Region during 1983 - a case study.**
 Chandra, S.
 Directorate Plant Protection, Quarantine & Storage, NH IV,
 Faridabad, Haryana, India.
 Plant Protection Bulletin, India 1985. 37 (3-4): 7-12 (3
 ref.)
 Language: English
- (278) **The locust and grasshopper threat to Africa.**
 Pedgley, D. E.
 TDRI, London, W8 5SJ, UK.
 Span 1987. 30 (1): 32-34 (3 fig.)
 Language: English

- (279) Unprecedented invasion by desert locust swarm over coastal Saurashtra (India) during June 1978 - a study through meteorological perspective.
 Moray, P. E.; Kazi, S. K.; Patankar, M. P.
 Directorate of Agricultural Meteorology, Pune-5, India.
 Plant Protection Bulletin, India 1981, publ. 1983. 33 (3/4): 113-121 (2 ref., 3 fig.)
 Language: English

D. Informes y reportes / Statements and reports

- (280) TI : Characteristics of desert locust (*Schistocerca gregaria* (Forsk.) plague upsurges. (Review).
 AU : Hemming, C.F. (Centre for Overseas Pest Research, London W8 5SJ (UK)); Popov, G.B.; Roffey, J.; Waloff, Z.
 LA : En
 JR : Philosophical Transactions of the Royal Society of London B (UK). (1979). v. 287(1022) p. 375-386.
 NO : 27 ref., 5 fig.
 CN : Country: XEGB. J (Serial article).
 CC : H10 (Pests of plants). 4020.
- *(281) The Desert locust in Trinidad and Tobago - an update.
 Mac Comie, I. D.
 Regional Meeting on Desert Locust. 1988.
 Port of Spain, IICA, 1988. 11 p.
- (282) The desert locust pocket book.
 Centre for Overseas Pest Research.
 London, 1978. 36 p.
- *(283) TI : The development and termination of the 1968 plague of the desert locust *Schistocerca gregaria* (Forsk.) (Orthoptera, Acrididae) (Africa, Asia).
 AU : Bennett, L.V. (Centre for Overseas Pest Research, London W8 5SJ (UK)).
 LA : En
 JR : Bulletin of Entomological Research (UK). (1976). v. 66(3) p. 511- 552.
 NO : 66 ref., 19 fig.
 CN : Country: XEGB. J (Serial article).
 CC : H10 (Pests of plants). G100 G570.
- (284) TI : (Exploratory mission on desert locust: elements of a bio-ecological research programme on the desert locust *Schistocerca gregaria* in the Adrar des Iforas, Tamesna and Air (Mali, Niger) 1 Jul - 20 Sep 1980). Mission exploratoire sur le criquet pelerin: Elements d'un programme de recherches bio-ecologiques sur le criquet pelerin *Schistocerca gregaria* (Forsk., 1775) dans l'Adrar des Iforas, le Tamesna et l'Air, 21 juillet - 20 septembre 1980.
 AU : Duranton, J.F.; Launois, M.
 CO : FAO, Rome (Italy). Plant Production and Protection Div.
 LA : Fr
 RP : FAO-AGP--DL/TS/22.
 IM : Rome (Italy). FAO. 1982. 51 p.
 SE : Stations de Recherche Acridienne sur le Terrain. Series Techniques (FAO). (no. 22) p. 1-47.
 NO : - FAO Accession No: XF8332621 (Available on Microfiche).
 CN : Country: XF. B (Monograph).
 LI : V (Non conventional).
 CC : H10 (Pests of plants). 4020 G208 G212.
 FT : desert locusts; mali; niger.
- (285) TI : The FAO desert locust programme.
 AU : Roffey, J.
 LA : En
 MS : The movement and dispersal of agriculturally important biotic agents. MacKenzie, D.R. (ed.). *US (DNAL SB599.2.166 1984).
 IM : Baton Rouge, La. (USA). Claitor's Publishing Division. 1985. p. 533-540. ISBN 08-751-17767.
 NO : ill.
 CF : (International Conference on the Movement and Dispersal of Biotic Agents. Baton Rouge, La. (USA). 17-19 Oct 1984.)
 CN : Country: US. B (Monograph).
 LI : K (Conference).
 CC : H10 (Pests of plants) E14.

- (286) CTES: (lad) fao; schistocerca; control de insectos; programas de ordenador; cooperacion internacional. (cad) arthropodos; control; control de plagas; cooperacion; insectos; invertebrados; langosta (orthoptera); organizaciones internacionales; orthoptera.
FT : schistocerca gregaria.
- (287) **Field observations on plant association of solitary adult desert locust (*Schistocerca gregaria* Forsk.) in western Rajasthan.**
Chandra, S.
Directorate of Plant Protection, Quarantine & Storage,
Faridabad, Haryana, India.
Plant Protection Bulletin, India 1984. 36 (4): 23-28 (22 ref.)
Language: English
- (288) **Lth Congress of the Italian Zoological Union, Zoology Sessions of the Zoological Society of France, Padua 26-30 June 1984. Summaries.**
L Convegno dell'Unione Zoologica Italiana, journées de Zoologie de la Societe Zoologique de France, Padova 26-30 giugno 1984. Riassunti/Resumes.
Unione Zoologica Italiana
Bollettino di Zoologia 1984. 51 (Suppl.): 124 pp.
Language: English; Italian; French
- (289) **The Indian anti-locust campaign, 1978.**
Paharia, K. D.; Rajak, R. L.; Venkatesh, M. V.
Directorate of Plant Protection, Quarantine & Storage,
Faridabad, India.
Plant Protection Bulletin, India 1981, publ. 1983. 33 (3/4): 131-149 (3 fig.)
Language: English
- *(290) **insect pests of the Sahara.**
Key environments. Sahara desert [edited by Cloudsley-Thompson, J.L.].
Popov, G. B.; Wood, T. G.; Haggis, M. J.
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Ellis, D. W.
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Old Harbour, 1988. 3 p.
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- (292) TI : **The locust, *Schistocerca gregaria*, var.**
AU : Baron, S.
LA : En, Es, Fr
JR : World Health (WHO). Sante du Monde (WHO) - Salud Mundial (WHO). (Jan 1979). p. 10-15.
NO : Illus.
CN : Country: XF. J (Serial article).
CC : H10 (Pests of plants).
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Walsh, J.
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 AU : Treakle, H.C.
 CO : U.S. Foreign Agricultural Service.
 LA : En
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 CO : FAO, Rome (Italy). Plant Production and Protection Div.
 LA : Fr
 RP : FAO-AGP--DL/TS/22.
 IM : Rome (Italy). FAO. 1982. 46 p.
 SE : Stations de Recherche Acridienne sur le Terrain. Series Techniques (FAO). (no. 22) p. 48-94.
 NO : Tables - FAO Accession No: XF8332623 (Available on Microfiche).
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 CC : H10 (Pests of plants). 4020 G208.
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 AU : Ashall, C.; Chaney, I. (Centre for Overseas Pest Research, London (UK)).
 LA : En
 IM : London (UK). COPR. 1982. 119 p.
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 CN : Country: XEGB. B (Monograph).
 LI : Y (Maps included) E (Summary) V (Non conventional).
 CC : H10 (Pests of plants). 4020 4074 G132.
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 Rome, Italy; FAO
 1983, recd. 1985. 14 pp. (Meeting report No. AGP/1983/M/1
 Language: English
- (300) Report of the twenty-seventh session of the FAO Committee for Control of the Desert Locust, held in Rome, Italy, 11-15 June 1984.
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 Language: French
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 Rome, Italy; FAO
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 Language: English

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 AU : Abdallahi Ould Mohamed Sidya.
 LA : Fr
 MS : (Desert locust field research stations. Technical series). (Locust control. Desert locust programme. Progress report). Stations de recherche acridienne sur le terrain. Series techniques. Lutte antiacridienne. Programme relatif au criquet pelerin. Rapport sur l'avancement des travaux. Abdallahi Ould Mohamed Sidya. FAO, Rome (Italy). Plant Production and Protection Div.
 RP : FAO-AGP--DL/TS/19.
 IN : 1978. p. 1-82.
 NO : FAO-ACCESS.No.--41947; Tables, graphs, maps; 4 ref.; Summary (Fr).
 CN : Country: XF. R (Report).
 LI : E (Summary) V (Non conventional).
 CC : H10 (Pests of plants). G210 G208.
 AB : Results of survey of locust populations of *Schistocerca gregaria* and other hoppers, with extensive information on meteorology, vegetation types and plant species, fauna and locust parasites and predators, with tables and maps. (EN)
 FT : technical paper; mauritania; desert locust; acrididae; flora. (en)
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 AU : Adler, M.A. d.
 LA : Fr
 JR : Sciences et Avenir (France). ISSN 0036-8636. (Aug 1978). (no.378) p. 30-37.
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 Language: English
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 Language: English

E. Investigaciones / Research

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 AU : Evans, P.D. (ARC Unit of Invertebrate Chemistry and Physiology, Department of Zoology, Cambridge University, Downing Street, Cambridge, CB2 3EJ (UK)); Gee, J.D.
 LA : En
 JR : Nature (UK). (1980). v. 287(5777) p. 60-62.
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 Davenport, A. P.; Morton, D. B.; Evans, P. D.
 AFRC Unit of Insect Neurophysiology & Pharmacology,
 Department of Zoology, University of Cambridge, Cambridge,
 CB2 3EJ, United Kingdom.
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 (37 ref., 3 fig.)
 Language: English

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 Dep. of Biol., Univ. of Salford, Salford M5 4WT, UK.
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 Language: English
- (310) **TI : Alanine aminotransferase: properties and distribution in the desert locust, Schistocerca gregaria.**
 AU : Mane, S.D. (Max-Planck-Institut für Biochemie, 8033 Martinsried bei München (Germany, F.R.)); Mehrotra, K.N.
 LA : En
 JR : Insect Biochemistry (UK). (1977). v. 7(5/6) p. 419-426.
 NO : 35 ref., 7 fig.
 CN : Country: XEGB. J (Serial article).
 CC : H10 (Pests of plants).
- (311) **TI : Alcoholic Bouin fixation of insect nervous systems for bodian silver staining. I. Composition of 'aged' fixative (Periplaneta americana, Schistocerca gregaria).**
 AU : Gregory, G.E.; Greenway, A.R.; Lord, K.A.
 LA : En
 JR : Stain Technology (USA). ISSN 0038-9153. (May 1980). v. 55(3) p. 143-149. *US (NAL 442.8 ST1).
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 CN : Country: US. J (Serial article).
 CC : L40 (Animal structure). 7900.
- (312) **Amoebae (Malamoeba locustae) and gregarines (Gregarina garnhami), parasites of Schistocerca gregaria in the Poznan Zoological Gardens.**
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 Language: Polish Summary Language: English
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 Div. Entomology, Indian Agric. Res. Inst., New Delhi-110012, India.
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 Language: English Summary Language: German
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 AU : Nath, A.; Mehrotra, K.N. (Indian Agricultural Research Inst., New Delhi. Div. of Entomology).
 LA : En
 JR : Indian Journal of Experimental Biology (India). ISSN 0019-5189. (Sep 1982). v. 20(9) p. 701-703.
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 CN : Country: IN. J (Serial article).
 LI : E (Summary).
 CC : H10 (Pests of plants). 4020.

- ***(316) TI : Biosynthesis of ecdysones: metabolism of 7-dehydrocholesterol in Schistocerca gregaria.**
AU : Johnson, P. (Department of Biochemistry, Liverpool University, P.O. Box 147, Liverpool, L69 3BX (UK)); Rees, H.H.
LA : En
JR : Journal of Insect Physiology (UK). (1977). v. 23(11/12) p. 1387- 1392.
NO : 18 ref.
CN : Country: XEGB. J (Serial article).
CC : H10 (Pests of plants).
- (317) Comparisons of deterrency and toxicity of selected secondary plant compounds to an oligophagous and a polyphagous acridid.**
 Cottee, P. K.; Bernays, E. A.; Mordue, A. J.
 Rentokil Ltd., Kampus Towers, University Way, PO Box 44360, Nairobi, Kenya.
 Entomologia Experimentalis et Applicata 1988. 46 (3): 241-247 (15 ref., 4 fig.)
 Language: English Summary Language: French
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 St. Leger, R. J.; Cooper, R. M.; Charnley, A. K. (Leger, R. J. St.)
 Univ. Bath, Claverton Down, Bath, BA2 7AY, Avon, UK.
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 Language: English
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 St Leger, R. J.; Charnley, A. K.; Cooper, R. M.
 School of Biol. Sci., Univ. Bath, Claverton Down, Bath, Avon, BA2 7AY, UK.
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 Language: English
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 Univ. Bath, Claverton Down, Bath, Avon, BA2 7AY, UK.
 Journal of Invertebrate Pathology 1986. 48 (1): 85-95 (29 ref., 2 fig.)
 Language: English
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Alteraciones en las contracciones del musculo extensor tibial metatoracico de Schistocerca gregaria (Forskål, 1775) tras la aplicacion in vivo de GABA.
 Díaz Mayans, J.; Andreu Moliner, E. D.; Nunez Cachaza, A. (Mayans, J. Diaz; Moliner, E. D. Andreu; Cachaza, A. Nunez)
 Facultad de Ciencias Biologicas, Universidad de Valencia, Burjasot, Spain.
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 Language: Spanish Summary Language: English
- (322) Changes in haemolymph octopamine levels associated with food deprivation in the locust, Schistocerca gregaria.**
 Davenport, A. P.; Evans, P. D.
 Department of Zoology, Cambridge University, United Kingdom.
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 Language: English

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 Kien, J.; Altman, J. S.
 Fachbereich fur Biologie, Regensburg Universitat, D-8400
 Regensburg, German Federal Republic.
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 Language: English
- (324) **Developmental determination of central connections of sensory neurones from wind-sensitive hairs in the locust, Schistocerca gregaria.**
 Bacon, J.; Anderson, H.
 Zoologisches Institut, Universitat Basel, Rheinsprung 9,
 Basel CH-4051, Switzerland.
 Journal of Experimental Biology 1985. 114 679-683 (7
 ref., 2 fig.)
 Language: English
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 AU : Anderson, H.; Bacon, J.
 LA : En
 JR : Developmental Biology (USA). ISSN 0012-1606. (Oct 1979). v. 72(2) p. 364-373. *US (NAL 442.8 D49).
 NO : Ill. 15 ref.
 CN : Country: US. J (Serial article).
 CC : H10 (Pests of plants). 4020.
- (326) **Disruption and abnormalities induced by precocene II, cycloheximide and/or C16 juvenile hormone in the desert locust, Schistocerca gregaria Forsk.**
 Salem, M. S.; El-Ibrashy, M. T.; Abdel-Hamid, M. (Ibra
 shy, M. T. El-; Hamid, M. Abdel-)
 Dep. Economic Entomology & Pesticides, Fac. Agric., Cairo
 Univ., Egypt.
 Bulletin of the Entomological Society of Egypt, Economic
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 3 fig.)
 Language: English
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 Hussein, E. M. K.; Mariy, F. M. A.; El-Guindy, M. A.;
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 Department of Plant Protection, Faculty of Agriculture, Ain
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 publ. 1984. (No. 63): 135-139 (5 ref.)
 Language: English
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 AU : Hatab, F.M.E.
 CO : Ain-Shams Univ. (Egypt). Faculty of Agriculture.
 LA : En
 IM : Cairo (Egypt). 1983. 101 p.
 NO : 24 fig. 14 tables; ref. p. 83-96; Summaries (Ar, En); *Library, Faculty of
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 CN : Country: EG. B (Monograph).
 LI : U (Thesis or diss.) Z (Bibliography) E (Summary) V (Non conventional).
 CC : H10 (Pests of plants). 4020 G232.
- (329) **TI : Effects of colchicine on in vitro aggregation of embryonic cells of Schistocerca gregaria Forskal (Insecta: Orthoptera).**
 AU : Fontana, F. (Ferrara Univ. (Italy). Istituto di Zoologia).
 LA : En
 JR : Acta Embryologicae Experimentalis (Italy). ISSN 0065-1184. (1979). (no.3) p.
 255-263.
 NO : 24 ill., 11 ref. Summary (En).
 CN : Country: XEIT. J (Serial article).
 LI : E (Summary).
 CC : L40 (Animal structure) L50. 7900.

- AB** : The effects of colchicine at different concentrations on in vitro aggregation of locust embryonic cells were studied. With high concentration (10^{-2} M) the drug shows an inhibitory effect; with lower concentrations (10^{-3} M to 10^{-7} M) the clumping of isolated cells was enhanced. In such clumps no histotypic structures were seen. We believe that colchicine prevents the sorting out and the organization of the aggregates. (EN)
- (330) **TI** : Effects of farnesyl methyl ether on embryos of *Schistocerca gregaria* (Orthoptera).
AU : Sbrenna Micciarelli, A. (Ferrara Univ. (Italy). Istituto di Zoologia).
LA : En
JR : Acta Embryologicae Experimentalis (Italy). ISSN 0065-1184. (1977). (no.3) p. 295-303.
NO : 2 tables; 6 illus. 18 ref. Summary (En).
CN : Country: XEIT. J (Serial article).
LI : E (Summary).
CC : L50 (Animal physiology and biochemistry). 7900.
- (331) **Effects of starvation and dehydration on ionic balance in *Schistocerca gregaria*.**
 Albaghdadi, L. F.
 Dep. Zool., Univ. Newcastle upon Tyne, NE1 7RU, England.
 Journal of Insect Physiology 1987. 33 (4): 269-277 (32 ref., 6 fig.)
 Language: English
- (332) **Effects of trimetaphan on locust [*Schistocerca gregaria* and *Locusta migratoria*] muscle glutamate receptors.**
 Ashford, M. L. J.; Boden, P.; Ramsey, R. L.; Shinozaki, H.; Usherwood, P. N. R.
 Dep. Zool., Univ. Nottingham, Nottingham, NG7 2RD, UK.
 Journal of Experimental Biology 1987. 130 405-424 (40 ref., 9 fig.)
 Language: English
- (333) **Effects of 20-OH-ecdysone injected into nymphs of *Schistocerca gregaria* (Orthoptera, Acrididae).**
 Effetti del 20-OH-ecdisono iniettato in larve di *Schistocerca gregaria* (Orthoptera, Acrididae).
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 Leis, M.; Lancellotti, M.; Sbrenna, G.
 Istituto di Zoologia, Universita di Ferrara, 44100 Ferrara, Italy.
 Palermo, Italy; Accademia Nazionale Italiana di Entomologia 1985. 907-908 (4 ref.)
 Language: Italian Summary Language: English
- (334) **Effects of 22,23-dihydroavermectin B1a on locust (*Schistocerca gregaria*) muscles may involve several sites of action.**
 Scott, R. H.; Duce, I. R.
 Department of Zoology, University of Nottingham, Nottingham, NG7 2RD, United Kingdom.
 Pesticide Science 1985. 16 (6): 599-604 (20 ref., 3 fig.)
 Language: English
- (335) **The electrical constants of the fibres from two leg muscles of the locust *Schistocerca gregaria*.**
 Kornhuber, M. E.; Walther, C.
 Dep. Anatomy, Univ. Ulm, German Federal Republic.
 Journal of Experimental Biology 1987. 127 173-189 (42 ref., 4 fig.)
 Language: English

- (336) **Evaluation of the isotonic and isometric contractions of the metathoracic tibial extensor muscle of *Schistocerca gregaria* (Forsk., 1775), and its variation with the temperature.**
Evaluacion de contracciones isotonicas e isometricas del musculo extensor tibial metatoracico de *Schistocerca gregaria* (Forsk., 1775), y su variacion con la temperatura.
 Diaz Mayans, J.; Andreu Moliner, E. D.; Nunez Cachaza, A. (Mayans, J. Diaz; Moliner, E. D. Andreu; Cachaza, A. Nunez)
 Facultad de Ciencias Biologicas, Universidad de Valencia, Burjasot, Spain.
 Boletin de la Asociacion Espanola de Entomologia 1983. 7 221-229 (8 ref., 5 fig.)
 Language: Spanish Summary Language: English
- (337) **TI : Experimental study of food intake of *Schistocerca gregaria* Forsk. (Orthoptera, Acrididae) on two plants: *Pteridium aquilinum* L. Kuehn (fern, Dennstaedtiaceae) and *Sasa japonica* Mak. (Graminaceae) (physiology of insects). Etude experimentale comparative de la prise de nourriture de *Schistocerca gregaria* Forsk. (Orthoptera Acrididae) sur deux vegetaux: *Pteridium aquilinum* L. Kuhn (Fougere Dennstaedtiaceae) et *Sasa japonica* Mak. (graminees) (physiologie des insectes).**
AU : Aspirot, J. (Paris-11 Univ., 91 - Orsay (France). Lab. d'Entomologie); Lange, G.
LA : Fr
JR : Comptes Rendus Hebdomadaires des Seances de l'Academie des Sciences. Serie 3. Sciences de la Vie (France). ISSN 0567-655X. (02 Feb 1981). v.292(5) p. 431-434.
NO : 16 Ref., Summaries (En, Fr).
CN : Country: XEFR. J (Serial article).
LI : E (Summary).
CC : L50 (Animal physiology and biochemistry) L20. 7000.
- *(338) TI : Experimental study of stimulatory effect of feeding sucrose and sinigrin in *Schistocerca gregaria* (Orthoptera: Acrididae) and regulation phenomena (desert locust; insect physiology). Etude experimentale de l'action phagostimulante du saccharose et de la sinigrine et mise en evidence de phenomenes de regulation chez le criquet pelerin *Schistocerca gregaria* (Orthoptera Acrididae) (physiologie des insectes).**
AU : Aspirot, J. (Paris-11 Univ., 91 - Orsay (France). Lab. d'Entomologie); Lange, G.
LA : Fr
JR : Reproduction Nutrition Developpement (France). ISSN 0181-1916. (1981). v.21(5A) p. 695-704.
NO : 4 Graphs, 22 Ref., Summary (En).
CN : Country: XEFR. J (Serial article).
LI : E (Summary).
CC : L50 (Animal physiology and biochemistry) L30. 8830 7000.
- (339) **Failure of tannic acid to inhibit digestion or reduce digestibility of plant protein in gut fluids of insect herbivores: implications for theories of plant defense.**
 Martin, J. S.; Martin, M. M.; Bernays, E. A.
 Div. Biol. Sci., Univ. Michigan, Ann Arbor, MI 48109, USA.
 Journal of Chemical Ecology 1987. 13 (3): 605-621 (39 ref.)
 Language: English
- (340) **Hemocytic aggregation in *Schistocerca gregaria* and *Periplaneta americana* as a response to injected substances of microbial origin.**
 Gunnarsson, S. G. S.; Lackie, A. M.
 Department of Entomology, Uppsala University, Box 561, S751 22 Uppsala, Sweden.
 Journal of Invertebrate Pathology 1985. 46 (3): 312-319 (23 ref., 5 fig.)
 Language: English
- (341) **Hemolymph transfer as an assay for immunorecognition in the cockroach *Periplaneta americana* and the locust *Schistocerca gregaria*.**
 Lackie, A. M.
 Dep. Zool., Univ. Glasgow, Glasgow, G12 8QQ, UK.
 Transplantation 1986. 41 (3): 360-363 (20 ref.)
 Language: English

- (342) **Immunochemical ablation of accessory reproductive glands of the male desert locust.**
 Dhadialla, T. S.; Odhiambo, T. R.; Wagner, G. G.
 ICIPE, PO Box 30772, Nairobi, Kenya.
 Insect Science and its Application 1986. 7 (4): 465-470
 (26 ref., 5 fig.)
 Language: English Summary Language: French
- (343) **Influence of femoral chordotonal organ afferences on ecdysis and on the development of motor programmes in locust larvae.**
 Bassler, U.
 Fachbereich Biologie der Universitat Kaiserslautern,
 Postfach 3049, D-6750 Kaiserslautern, German Federal
 Republic.
 Physiological Entomology 1983. 8 (4): 353-357 (7 ref., 1
 fig.)
 Language: English
- (344) **TI : Investigation of the possible role of hemocyte and parasite surface charge in the clearance of Trypanosoma rangeli from the insect hemocoel.**
 AU : Takle, G.B.; Lackie, A.M.
 LA : En
 JR : Journal of Invertebrate Pathology (USA). ISSN 0022-2011. (Nov 1987). v. 50(3) p. 336-338. *US (DNAL 421 J826).
 NO : III.
 CN : Country: US. J (Serial article).
 CC : L72 (Pests of animals) H10.
 CTES: (lad) hemiptera; periplaneta; schistocerca; infecciones; resistencia a agentes daninos/ trypanosoma. (cad) artropodos; cucaracha; dictyoptera; epidemiologia; insectos; invertebrados; langosta (orthoptera); mastigophora; orthoptera; protozoa; transmision de enfermedades.
 FT : dipetalogaster maximus; rhodnius prolixus; periplaneta americana; schistocerca gregaria.
- (345) **Isolation of insect antifeedant alkaloids from Maytenus rigida (Celastraceae).**
 Monache, F. Delle; Marini Bettolo, G. B.; Bernays, E. A. (Delle Monache, F.; Bettolo, G. B. Marini)
 Centro Chimica dei Recettori e delle Molecole Biologicamente Attive del CNR, c/o Universita Cattolica del S. Cuore, Rome, Italy.
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 Language: English Summary Language: German
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