

Homage to Dr Jean Gutierrez (1936-2023)

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Obituary



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On January 21, the scientific community, and more particularly that of acarologists and agricultural entomologists, learned with sadness the death of Jean Gutierrez, one of their renowned colleagues.

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Jean Gutierrez was born in 1936 in Mostaganem (Algeria) where his family had been established for many years. After high school and a preparatory class in Algiers, he joined the Agronomical University of Toulouse, France, where he obtained his diploma of Agricultural Engineer. He was then hired by Institut de Recherche pour le Développement IRD, formerly ORSTOM. His scientific career began as a “student at ORSTOM” during two years, followed by two years of internship. Jean Gutierrez’s student years took place at ORSTOM center, Bondy, near Paris, where he specialized in agricultural entomology. From October 1961 to May 1963, Jean performed the mandatory military service as an officer in the artillery and in the parachutists. In 1963 he was married to his wife Dominique. They have two daughters, Anne and Armelle. In 1964, after the end of his student years and a short stay at INRAE (formerly INRA) in Versailles, at the time the main French laboratory of agricultural entomology, he was appointed to Madagascar until 1974.

Slide in Figure 1A represents an example from this period. The first mites collected in France by Jean Gutierrez were *Bryobia rubrioculus*, *Euetranychus buxi*, *Eotetranychus tiliarium*, *Panonychus ulmi*, *Amphitetranychus viennensis* and *Tetranychus urticae*, marking his definitive entrance into the world of the Tetranychidae.



In 1974, back in France, he defended his PhD thesis, “Etude biologique et écologique de *Tetranychus neocaledonicus* André (Acariens, Tetranychidae)” at the University of Orsay, awarding him the title of Docteur ès Sciences.

In 1975, he was appointed to New Caledonia, where he continued to not only study mites but also produced numerous reports as agricultural entomologist for the South Pacific area. Jean Gutierrez continued his scientific activity in New Caledonia until 1984. At that time, he returned to France and was appointed to ORSTOM in Montpellier and later to the INRA-ENSAM-ORSTOM Acarology laboratory on the campus of the present Institut Agro (formerly the Ecole Nationale Supérieure d’Agronomie de Montpellier, ENSAM).

He retired at the beginning of 1998.

Jean Gutierrez, was a recognized taxonomist worldwide. He contributed hugely to the definitive knowledge of the spider mites of Madagascar (and the Indian Ocean Islands) and New Caledonia, together with the South West Pacific islands and Papua. He did not limit himself strictly to the description of new species, faunal inventory or revision of classification, but all along his career, he associated morphological characterization with the study of life history traits. He pioneered this integrative approach, laying down the foundation for the morphological phylogeny of the Tetranychidae in 1985 and continued with the same approach,

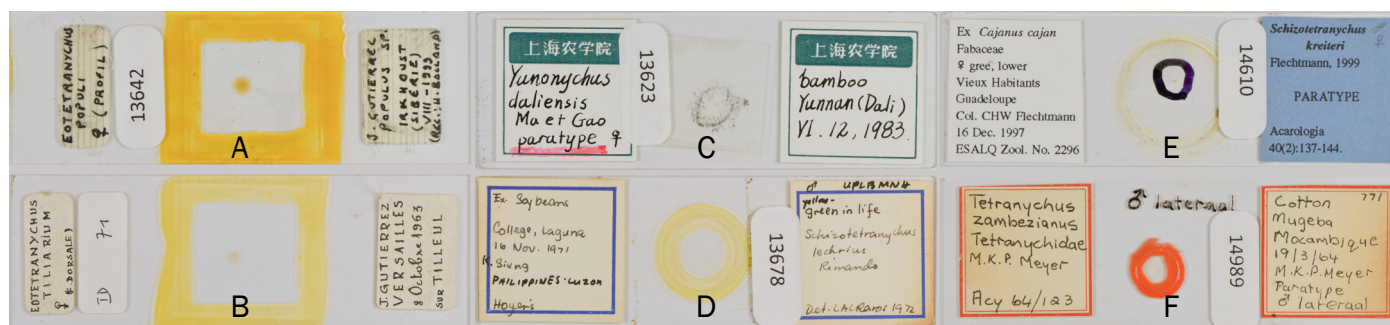


Figure 1 Some slides from the collection of Jean Gutierrez. A – first set of slides from Versailles, 1963; B – Last set of slides, 1999; C – Slide gifted by E-P. Ma; D – Slide gifted by L. Corpuz-Raros; E – Slide gifted by C.H.W Flechtmann; F – Slide gifted by MKP. Meyer.

when he joined the INRA-ENSAM-ORSTOM Acarology laboratory a few years later. Through collaborations, he initiated the foundation of the molecular phylogeny of this family of mites.

From 1966 to 1986, Jean Gutierrez described 2 genera and 54 species of Tetranychidae (among them 51 are still valid), 3 species of Tenuipalpidae, 1 species of Tarsonemidae and 3 species of Phytoseiidae. As a recognition of the enormous work achieved, 6 species of mites were dedicated to him (1 Tetranychidae, 3 Eriophyidae and 2 Phytoseiidae). A quick glimpse on the list of his achievements, gives an overview of the network of his French and worldwide collaborations. He was in continuous relationship with all the renowned contemporary colleagues working on the Tetranychidae family, namely Magdalena K. P. Meyer, Shozo Ehara, Carlos H. W. Flechtmann, Leonilia Corpuz-Raros and En-Pei Ma.

Jean Gutierrez built a remarkable collection of spider mites that is nowadays considered a world reference, preserved since his retirement at the UMR CBGP in Montpellier-sur-Lez (CBGP – Continental Arthropod Collection (V2 edn). Portail Data INRAE. <https://doi.org/10.15454/D6XAKL> Montpellier, France). The collection consists of 5,262 specimens belonging to 175 species corresponding to 1,564 field collections. Thanks to his remarkable rigor in the management and the labeling of specimens (Figures 1, 2), all the data have been made available as a legacy to the international scientific community via the GBIF (<https://www.gbif.org/fr/dataset/ac60a288-fcc9-43fe-a7d4-e732b748a981>). In addition, among the 109 boxes of slides, many more specimens belonging to several families of Acari are still waiting to be digitized.

Throughout his career, Jean Gutierrez published 75 articles in peer-reviewed journals, 3 books, 8 book chapters, 26 communications in congresses and 18 reports. Almost all his work is freely available via the IRD portal (<https://horizon.documentation.ird.fr/exl-php/accueil>). He participated, along with many other famous acarologists, to the standard books for everyone interested in plant mites, the “Big Blue Book”. The “Big Blue Book” of the World Crop Pests series, published in 1985, is still regarded as the reference for the study of the Tetranychidae, it consists of two volumes entitled: Spider Mites, their biology, natural enemies and control (Elsevier Amsterdam), edited by Willem Helle and Maurice W. Sabelis. In addition, just before retiring, Jean devoted his work to the edition of another important book in collaboration with his two colleagues Hans R. Bolland and Carlos H. W. Flechtmann: the “Small Green Book”. This World Catalog of the Spider Mite Family (Acari: Tetranychidae) (Brill Leiden) settled the basis of the modern and synthetic knowledge of the nomenclatural history, world distribution and host plants of the 1,190 species of Tetranychidae known at that date, compiling 1,227 references. The work also comprises a taxonomical key to the world genera and it is used every day by acarologists around the world. Jean Gutierrez wisely thought to share the database supporting this catalog, initiating the Spider Mites Web portal, which currently gathers all this information and is regularly enhanced and updated. Presently, the portal receives more than 20,000 page visits per year (<https://www1.montpellier.inra.fr/CBGP/spmweb/index.php>).

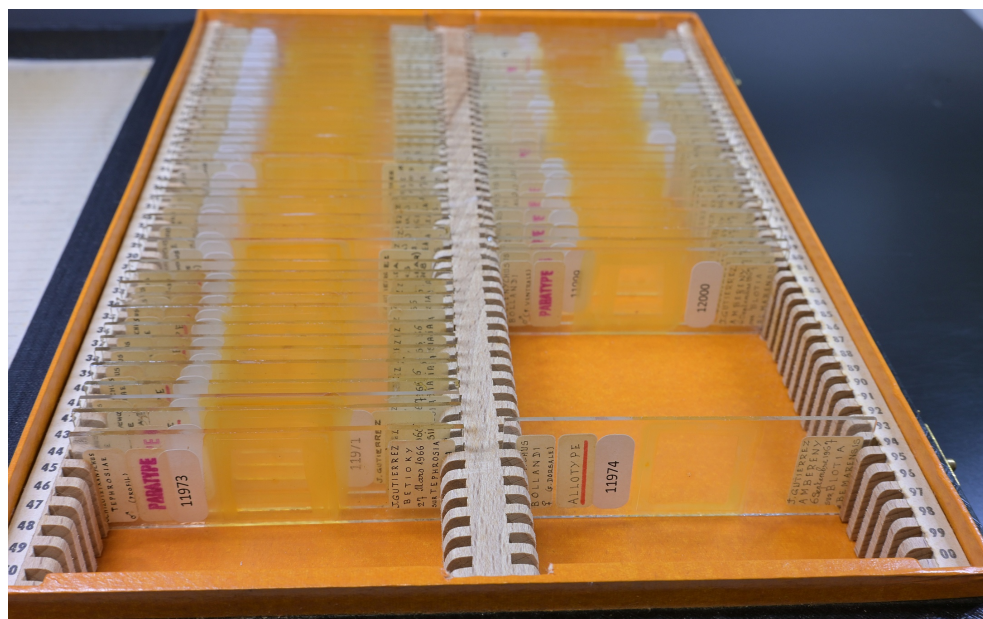


Figure 2 The box 34 labelled MADAGASCAR – *Hellenychus bolllandi*, *Anatetranychus tephrosiae*, containing the types and paratypes of the genus *Hellenychus* and the two species *Hellenychus bolllandi* and *Schizotetranychus tephrosiae*.

At first sight, Jean seemed a rather reserved person, but this was only on the surface as once the contact was established, Jean revealed a rather expansive person, very willing to share his expertise and knowledge. Everyone will remember his personal, inimitable way of telling jokes or revealing events from behind the scenes – a surprising contrast with the rigorous and extremely meticulous scientist he was and the solidity of his work as a taxonomist.

Alain Migeon, INRAE

On a personal note, I would add that Jean Gutierrez introduced me to the world of Tetranychidae and, as curator of his collection and custodian of his huge documentation and work that accompanies me every day, I am particularly indebted to him.

Maria Navajas, INRAE

Amongst the colleagues at the INRA Acarology Laboratory that had the opportunity to collaborate with Jean Gutierrez, I had the privilege, during 20 years, to work closely with him. Jean was my mentor when I threw myself into the Acarology world as I integrated my career as a researcher at INRAE back in 1990. Being at that time a neophyte on spider mites, Jean unveiled to me the fascinating biological secrets of these mites. Coming from the evolutionary biology field, the evolution of the family Tetranychidae was the convergence point for a successful and exciting collaboration which allowed us to launch what was at that time the very first studies on the molecular systematics and, shortly after, the molecular phylogeny of the Tetranychidae. Working with Jean had always been enriching but also a real pleasure for his positive and cheerful approach. I'm intensely indebted to Jean, for his generosity in sharing his immense knowledge.

Genera described

Tetranychidae

Eonychus Gutierrez, 1969
Hellenychus Gutierrez, 1970

Species described

Tetranychidae

Aponychus grandidieri (Gutierrez, 1966)
Bryobia neoephedrae (Gutierrez & Bolland, 1998)
Duplanychus ranjatoi (Gutierrez, 1967)
Eonychus greviae Gutierrez, 1969
Eotetranychus befandrianae Gutierrez, 1967
Eotetranychus borbonensis Gutierrez, 1968
Eotetranychus botryanthae Gutierrez, 1970
Eotetranychus capricorni Gutierrez, 1967
Eotetranychus friedmanni Gutierrez, 1968
Eotetranychus garnieri Gutierrez, 1978
Eotetranychus grandis Gutierrez, 1969
Eotetranychus greveanae Gutierrez, 1970
Eotetranychus imerinae Gutierrez, 1967, syn. of
Eotetranychus ancora Baker & Pritchard, 1960
Eotetranychus limoni Blommers & Gutierrez, 1975
Eotetranychus neodeleoni Gutierrez & Bolland, 1998
Eotetranychus paracybelus Gutierrez, 1967
Eotetranychus pauliani Gutierrez, 1968
Eotetranychus ranomafanae Gutierrez, 1967
Eotetranychus rinorea Gutierrez, 1970
Eotetranychus robini Gutierrez, 1978
Eotetranychus roedereri Gutierrez, 1967
Eotetranychus sakalavensis Gutierrez, 1967
Eotetranychus tulearensis Gutierrez, 1967
Eotetranychus xylopieae Gutierrez, 1970
Eurytetranychus madagascariensis Gutierrez, 1966
Eutetranychus eliei Gutierrez & Helle, 1971
Eutetranychus sambiranensis Gutierrez & Helle, 1971, syn. of *Eutetranychus africanus* (Tucker, 1926)
Hellenychus bollandi Gutierrez, 1970
Oligonychus andrei Gutierrez, 1966
Oligonychus andropogonearum Gutierrez, 1969
Oligonychus bessardi Gutierrez, 1966

Oligonychus chazeaui Gutierrez, 1970
Oligonychus etiennei Gutierrez, 1982
Oligonychus hova Gutierrez, 1966
Oligonychus leandrianae Gutierrez, 1970
Oligonychus monsarrati Gutierrez, 1967
Oligonychus occidentalis Gutierrez, 1969
Oligonychus pemphisi Gutierrez, 1970
Oligonychus randriamasii Gutierrez, 1967
Oligonychus senegalensis Gutierrez & Etienne, 1981
Oligonychus sylvestris Gutierrez, 1967, syn. of
Oligonychus licinus Baker & Pritchard, 1960
Oligonychus thelytokus Gutierrez, 1977
Oligonychus tiwakae Gutierrez, 1978
Oligonychus virens Gutierrez, 1969
Porcupinychus insularis (Gutierrez, 1968)
Pseudobryobia neoephedrae Gutierrez & Bolland, 1998
Schizonobia bundi Gutierrez, 1972
Schizonobia oudemansi Gutierrez & Bolland, 1986
Schizotetranychus australis Gutierrez, 1968
Schizotetranychus fauveli Gutierrez, 1978
Schizotetranychus tephrosiae Gutierrez, 1968
Tetranychus kaliphorae Gutierrez, 1969
Tetranychus montrouzieri Gutierrez, 1978
Tetranychus panici Gutierrez, 1969
Tetranychus roseus Gutierrez, 1969
Tetranychus tchadi Gutierrez & Bolland, 1973

Tenuipalpidae

Tenuipalpus banksiae Gutierrez & Schicha, 1982
Tenuipalpus grevilleae Gutierrez & Schicha, 1982
Tenuipalpus inophylli Gutierrez & Bolland, 1981

Tarsonemidae

Steneotarsonemus madecassus Gutierrez, 1967

Phytoseiidae

Gynaeseius armellae (Schicha & Gutierrez, 1985), syn. of *Gynaeseius liturivorus* (Ehara, 1982)
Papuaseius dominiquae (Schicha & Gutierrez, 1985)
Scapulaseius annae (Schicha & Gutierrez, 1985)

Publication list

Peer reviewed journals

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