

# CHECKLIST OF THE TRICHOPTERA OF NICARAGUA

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## ABSTRACT

The total number of caddisfly species in Nicaragua is 176, in 13 Families and 43 Genera. The number of caddisfly species recorded for Nicaragua has more than tripled since the first checklist in 1988, from 54 to 176 and almost doubled since 1999 despite the limited number of collections undertaken in the country in the last 18 years. This list adds 56 new country records.

## INTRODUCTION

Nicaragua has an area of 129,494 sq km and is the largest Central America country, and after Belize, the nation with the lowest population density, estimated at 5.5 million as of July 2006 (CIA World Fact Book, 2007). The country has three major geographical regions: The Pacific Lowlands, the Central Highlands, and the Caribbean Lowlands. Most of the population is concentrated in the Pacific Lowlands and has the most degraded ecosystem and environmental problems. The Central Highlands are mountainous and much of the natural areas of wet tropical forest are well preserved. The Caribbean Lowlands are hot and humid and in general, the northern area is characterized by pine and palm savannas, while the southern region is characterized by wet tropical forests. This area is sparsely populated and better preserved however, it is the most difficult to access.

Georg Ulmer described the first Trichoptera from Nicaragua, *Chimarra (Curgia) banksi* (Ulmer) 1907 from Chinandega. Oliver S. Flint, Jr. went on to described the second Trichoptera from Nicaragua, *Smicridea (S.) matagalpa* Flint 1974, based on material he collected in 1967. In 1988, Maes and Flint recorded 54 species of caddisflies for the country. By 1999, the total number of caddisflies species recorded from Nicaragua, based on distribution records found in the Catalog of Neotropical Trichoptera, was 66 species (Flint et al. 1999). In 1999, Maes published an updated list of Trichoptera found in Nicaragua in his three volume compendium of the Insects of Nicaragua, and added 42 new records, bringing the total to 108 species. Since then, 12 new

species have been described that are endemic to, or found in Nicaragua. The total number of 120 species greatly contrasts the more than 500 species of caddisflies recorded in neighboring Costa Rica. The low number of caddisflies recorded in Nicaragua, to date, is due to the relative paucity of collections undertaken in Nicaragua rather than to the country's geography or lack of habitat diversity. This checklist is a compilation of records of Trichoptera found in Nicaragua from the literature and from material collected by Maes and Chamorro during several joint and separate expeditions.

Between the years of 1993 and 1997 Maes and colleagues (B. Hernandez, Novelo, F. Collantes, S. Hue) made several collections. In the Central Highlands collections were made in the Department of Jinotega: Peñas Blancas (13.28, -85.55, 1300 m), Cerro Mazú (14.55, -85.12, 220 m), and Cerro Kilambé (13.57, -85.72, 1300 m); In the Department of Matagalpa: Selva Negra (12.99, -85.91, 1300 m) and El Coyolar (13.12, -85.83); And in the Department of Madriz: San José de Cusmapa. In the Caribbean Lowlands, what was formerly known as the Department of Zelaya, (present day RAAN, North Atlantic Autonomous Region and RAAS, South Atlantic Autonomous Region), collections were made in the western part of the RAAN: Cerro Saslaya (13.73, -85.02, 700 m), Río Waspuk, Rápido Waula Kumbas (14.43, -84.6, 75 m), Las Américas (13.12, -84.52, 230 m), and Río Las Latas (14.07, -88.55?, 220 m); Collections in the Pacific Lowlands were fewer; In the department of Leon: between La Leona and Izapa.

On July and August of 2000 Chamorro and colleagues (J. Lacayo, E. Dobbins, A. Christiansen, M. Ruiz, D. Martinez, A. Lopez) and on July of 2001 Chamorro and Maes, made several collections. In the Central Highlands in the Department of Jinotega: Area Protegida Datanlí-El Diablo, finca Santa Maura (13.17, -85.86, 1050 m) and Cerro Kilambé; In the Department of Matagalpa: Selva Negra; and in the Department of Estelí: Area Protegida Miraflor (13.22, -86.26, 1230 m). In the Pacific Lowlands collections were made in the Department of Granada: Isla Zapatera (11.76, -85.85, 42 m) and Reserva Silvestre Privada Domitila (11.70, -85.95, 59 m); in the Department of Rivas; Río Las Lajas (11.36, -85.80); In the Department of Carazo: Road towards Pochomil/Montelimar (11.92, -86.46, 185 m). In the southern part of the Caribbean Lowlands in the Department of Río San Juan: Refugio Bartola, Río Bartola/Río San Juan.

The preliminary results presented herein are based on species level identification of more than 90 % of the material collected. We hope this checklist, although incomplete, will shed light

on the diversity of the fauna and on patterns of endemism and distribution, as well as serve as a basis for future faunistic, taxonomic and/or ecological work.

## RESULTS

To date, 176 species of Trichoptera are recorded from Nicaragua in 13 Families and 43 Genera. Of these 176 species, 12 have recently been described as new to science, as mentioned above. Recently described species include *Cyrnellus zapateriensis* Chamorro-Lacayo 2003 from Isla Zapatera in Lake Nicaragua, off the coast of Granada, *Polyplectropus maesi* Chamorro-Lacayo 2003 and *Polyplectropus nicaraguensis* Chamorro-Lacayo 2003 from Jinotega, and *Cer-notina riosanjuanensis* Chamorro-Lacayo 2003 from Rio San Juan. Also, *Banyallarga (Histricoverpa) nica* Prather 2004 from Jinotega, *Banyallarga (Histricoverpa) sylvana* Prather 2004 from Jinotega and Region Autonoma del Atlantico Norte (RAAN), formerly Zelaya in part and also known from Costa Rica, also *Triaenodes kilambe* Holzenthal & Andersen 2004 and *Triaenodes nicaraguensis* Holzenthal & Andersen 2004 from Jinotega, and more recently *Protoptila cristula* Holzenthal & Blahnik 2006.

## DISCUSSION

The number of caddisfly species recorded for Nicaragua has more than tripled since the first checklist in 1988, from 54 to 176 despite the limited number of collections undertaken in the country in the last 18 years. In addition, 20 species have been identified as new species and await description and 7 were identified as near another species and await comparison to types. Of some of the more notable new species to be described is a new species of *Diplectrona* collected in Jinotega. This signifies the southernmost extension of the genus. Additionally, two new species of *Leuchotrichia* have been identified, one being close to *L. sarita*, but with modified antennae and also collected in Jinotega. New or near species have also been identified in the following genera: *Mexitrichia* (1 species), *Helicopsyche* (4), *Smicridea* (3), *Flintiella* (1), *Neotrichia* (5), *Ochrotrichia* (2), *Oecetis* (4), *Chimarra (Curgia)* (1), *Wormaldia* (2), *Machairocentron* (1). Thus, the total number is sure to increase to at least 203 species.

Given its diverse geography and the mostly intact and rarely collected natural areas of the Central Highlands and Caribbean Lowlands, the total number of caddisfly species will continue to increase. New and endemic species continue to be collected in Nicaragua, despite an extensive

caddisfly survey in neighboring Costa Rica. This exemplifies the importance of inventorying entire geographical regions, and not individual nations, especially those considered to be biodiversity hotspots, as is Mesoamerica (Myers et al. 2000). Nicaragua is located in the middle of the land bridge connecting North and South America, thus reflects faunistic affinities with both land masses. Additional studies will reveal interesting patterns of distribution, such as that of the genus *Diplectrona*.

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#### REFERENCES

- Aguila, Y. 1992. Systematic catalogue of the caddisflies of Panama (Trichoptera). Pages 532-548 *in* Insects of Panama and Mesoamerica: Selected Studies. (D. Quintero, and A. Aiello, eds.). Oxford University Press, Oxford.
- Blahnik, R. J. 1995. New species of *Smicridea* (subgenus *Smicridea*) from Costa Rica, with a revision of the *fasciatella* complex (Trichoptera: Hydropsychidae). Journal of the North American Benthological Society 14(1): 84-107.
- Blahnik, R. J. 1998. A revision of the Neotropical species of the genus *Chimarra*, subgenus *Chimarra* (Trichoptera: Philopotamidae). Memoirs of the American Entomological Institute 59: vi+1-318.
- Blahnik, R. J., and R. W. Holzenthal. 1992. New species of *Chimarra* subgenus *Chimarra* Stephens from Costa Rica (Trichoptera: Philopotamidae). Proceedings of the Washington Entomological Society 94(4): 409-438.
- Bueno-Soria, J. 1990. Estudios en insectos acuáticos VIII. revision para Mexico y Centroamerica del genero *Polyplectropus* Ulmer (Trichoptera: Polycentropodidae). Anales del Instituto de Biología, Universidad Nacional Autónoma de México, Serie Zoología 61(3): 357-404.
- Bueno-Soria, J., and O.S. Flint, Jr. 1978. Catálogo sistemático de los tricopteros de México (Insecta: Trichoptera), con algunos registros de Norte, Centro y Sudamérica. Anales del Instituto de Biología, Universidad Nacional Autónoma de México, Serie Zoología 49(1): 189-218.
- Chamorro-Lacayo, M. L. 2003. Seven new species of Polycentropodidae (Trichoptera) from Nicaragua and Costa Rica. Proceedings of the Entomological Society of Washington 105(2): 484-498.
- CIA World Fact Book. 2007. <https://www.cia.gov/cia/publications/factbook/print/nu.html>.
- Flint, O. S., Jr. 1967. Studies of Neotropical caddis flies, IV: new species from Mexico and Cen-

- tral America. Proceedings of the United States National Museum 123(3608): 1-24.
- Flint, O. S., Jr. 1970. Studies of Neotropical caddisflies, X: *Leucotrichia* and related genera from North and Central America (Trichoptera: Hydroptilidae). Smithsonian Contributions to Zoology 60: 1- 64.
- Flint, O. S., Jr. 1972. Studies of Neotropical caddisflies, XIII: the genus *Ochrotrichia* for Mexico and Central America (Trichoptera: Hydroptilidae). Smithsonian Contributions to Zoology 118: 1-28.
- Flint, O. S., Jr. 1974. Studies of Neotropical caddisflies, XVII: the genus *Smicridea* from North and Central America (Trichoptera: Hydropsychidae). Smithsonian Contributions to Zoology 167: 1-65.
- Flint, O. S., Jr. 1995. Studies of Neotropical caddisflies, LII: the genus *Wormaldia* in Nicaragua, with the description of a new species (Trichoptera: Philopotamidae). Revista Nicaraguense de Entomologia 32(1995): 5-9.
- Flint, O. S., Jr. 1998. Studies of Neotropical caddisflies, LIII: a taxonomic revision of the subgenus *Curgia* of the genus *Chimarra* (Trichoptera: Philopotamidae). Smithsonian Contributions to Zoology 594: 1-131.
- Flint, O. S., Jr., and J. Bueno-Soria. 1979. Studies of Neotropical caddisflies, XXIV: the genus *Macronema* in Mesoamerica (Trichoptera: Hydropsychidae). Proceedings of the Entomological Society of Washington 81(4): 522-535.
- Flint, O. S., Jr., and D. G. Denning. 1989. Studies of Neotropical caddisflies, XL: new species of *Smicridea* (*Smicridea*) from Middle America and the West Indies (Trichoptera: Hydropsychidae). Proceedings of the Biological Society of Washington 102(2): 418-433.
- Flint, O. S., Jr., R. W. Holzenthal, and S. C. Harris. 1999. Catalog of the Neotropical Caddisflies (Trichoptera). Ohio Biological Survey, Columbus, Ohio.
- Flint, O. S., Jr., J. F. McAlpine, and H.H. Ross. 1987. A revision of the genus *Leptonema* Guerin (Trichoptera: Hydropsychidae: Macronematinae). Smithsonian Contributions to Zoology 450: 1-193.
- Flint, O. S., Jr., and L. Reyes. 1991. Studies of Neotropical caddisflies, XLVI: the Trichoptera of the Río Moche Basin, Department of La Libertad, Peru. Proceedings of the Biological Society of Washington 104(3): 474-492.
- Harris, S. C., and R. W. Holzenthal. 1999. Hydroptilidae (Trichoptera) of Costa Rica: the genus *Hydroptila* Dalman. Studies on Neotropical Fauna and Environment 34: 16-51.
- Holzenthal, R. W. 1995. The caddisfly genus *Nectopsyche*: new *gemma* group species from Costa Rica and the Neotropics (Trichoptera: Leptoceridae). Journal of the North American Benthological Society 14: 61-83.
- Holzenthal, R. W., and T. Andersen. 2004. The caddisfly genus *Triaenodes* in the Neotropics (Trichoptera: Leptoceridae). Zootaxa 511: 1-80.
- Holzenthal, R. W., and R. J. Blahnik. 2006. The caddisfly genus *Protoptila* in Costa Rica (Trichoptera: Glossosomatidae). Zootaxa 1197: 1-37.
- Holzenthal, R. W., and S. C. Harris. 1999. The genus *Costatrichia* Mosely in Costa Rica, with a review of the Neotropical species (Trichoptera: Hydroptilidae). Proceedings of the Entomological Society of Washington 101(3): 540-568.
- Maes, J.-M. 1999. Insectos de Nicaragua. Catalogo de los Insectos y Artropodos Terrestres de Nicaragua Vol. III. PRINT, Leon, Nicaragua.
- Maes, J. M., and O. S. Flint, Jr. 1988. Catalogo de los Trichoptera de Nicaragua. Revista Nicaraguense de Entomologia 2: 1-11.
- Myers, N., R. Mittermeier, C. Mittermeier, G. da Fonseca, and J. Kent. 2000. Biodiversity hot-

- spots for conservation priorities. *Nature* 403(6772): 853-858.
- Prather, A. L. 2003. Revision of the Neotropical caddisfly genus *Phylloicus* (Trichoptera: Calamoceratidae). *Zootaxa* 275: 1-214.
- Prather, A. L. 2004. Revision of the Neotropical caddisfly genus *Banyallarga* (Trichoptera: Calamoceratidae). *Zootaxa* 435: 1-76.
- Schmid, F. 1982. La famille des Xiphocentronides (Trichoptera: Annulipalpia). *Memoires de la Société Entomologique du Canada* 121: 1-125.
- Ulmer, G. 1907. Trichoptera. 1-259 Wytzman, P. (Genera Insectorum, Vol. 60).

TAXON (176 SPECIES)	BIBLIOGRAPHY	DISTRIBUTION
<b>Calamoceratidae (6)</b>		
<i>Banyallarga (Histicoverpa) nica</i> Prather 2004	Prather 2004	JI
<i>Banyallarga (Histicoverpa) sylvana</i> Prather 2004	Prather 2004	AN, JI
<i>Phylloicus aeneus</i> (Hagen) 1861	Prather 2003, Maes 1999	ES, MT
<i>Phylloicus elegans</i> Hogue & Denning 1983	Maes & Flint 1988, Flint 1991, Prather 2003, Maes 1999	AN CO, JI, MT
<i>Phylloicus lituratus</i> Banks 1920	Prather 2003	AN, SJ
<i>Phylloicus nigripennis</i> (Banks) 1900	Prather 2003	MT
<b>Ecnomidae (2)</b>		
<i>Austrotinodes doublesi</i> Muñoz & Holzenthal 1993	Maes 1999	AN
<i>Austrotinodes panamensis</i> Flint 1973		AN, JI
<b>Glossosomatidae (12)</b>		
<i>Culoptila saltena</i> Mosely 1954	Maes 1999	AN
<i>Mexitrichia florica</i> Flint 1974	Maes 1999	AN
<i>Mexitrichia leroda</i> Mosely 1937	Maes 1999	AN
<i>Mexitrichia meralda</i> Mosely 1954	Maes 1999	AN
<i>Protophila bicornuta</i> Flint 1963		SJ
<i>Protophila choluteca</i> Flint 1974	Maes 1999	LE
<i>Protophila cristula</i> Holzenthal & Blahnik 2006	Holzenthal and Blahnik 2006	GR
<i>Protophila ixtala</i> Mosely 1937	Maes 1999	AN
<i>Protophila resolda</i> Mosely 1937	Maes 1999	LE
<i>Protophila rota</i> Mosely 1937	Maes 1999	LE
<i>Protophila salta</i> Mosely 1937	Maes 1999	LE, MT
<i>Protophila tojana</i> Mosely 1954	Maes & Flint 1988, Maes 1999	AN, CA, LE
<b>Helicopsychidae (7)</b>		
<i>Helicopsyche borealis</i> (Hagen) 1861		ES
<i>Helicopsyche dampfi</i> Ross 1956	Maes 1988, Maes 1999	AN, JI, MT
<i>Helicopsyche incisa</i> Ross 1956		JI
<i>Helicopsyche minima</i> Siebold 1856	Maes 1999	AN
<i>Helicopsyche piroa</i> Ross 1944		AN, ES, RI
<i>Helicopsyche planata</i> Ross 1956	Maes 1999	MT

<i>Helicopsyche vergelana</i> Ross 1956	Maes 1999	AN,CA, JI,MT,
<b>Hydobiosidae (7)</b>		
<i>Atopsyche (Atopsyche) cordoba</i> Denning 1968		ES, JI
<i>Atopsyche (Atopsyche) dampfi</i> Ross & King 1952	Maes 1999	AN, ES, JI,MT,
<i>Atopsyche (Atopsyche) erigia</i> Ross 1947	Maes & Flint 1988, Maes 1999	AN, CO, NS
<i>Atopsyche (Atopsyche) huenga</i> Flint 1974	Maes 1999	JI, MT
<i>Atopsyche (Atopsyche) implexa</i> (Navás) 1924		AN
<i>Atopsyche (Atopsaura) japoda</i> Ross & King 1952		JI
<i>Atopsyche (Atopsaura) majada</i> Ross 1947	Maes & Flint 1988, Maes 1999	AN, CO, JI
<b>Hydropsychidae (27)</b>		
<i>Centromacronema auripenne</i> (Rambur) 1852	Maes & Flint 1988, Maes 1999	CO, MT
<i>Diplectrona</i> sp.		JI
<i>Leptonema acutum</i> Mosely 1933		AN
<i>Leptonema albovirens</i> (Walker) 1852	Flint et al. 1987, Maes & Flint 1988, Maes 1999	AN,BO,CA,ES,GR, JI, NS, SJ
<i>Leptonema asclepium</i> Flint, McAlpine & Ross 1987		AN
<i>Leptonema crassum</i> Ulmer 1905	Flint et al. 1987, Maes & Flint 1988	AN, NS, SJ
<i>Leptonema dyeri</i> Flint, McAlpine & Ross 1987	Flint et al. 1987, Maes & Flint 1988	MT, NS
<i>Leptonema forficulum</i> Mosely 1933		AN, SJ
<i>Leptonema hamuli</i> Flint, McAlpine & Ross 1987		AN, ES, JI
<i>Leptonema simulans mayanum</i> Flint, McAlpine & Ross 1987	Flint et a. 1987, Maes & Flint 1988	AN ES, JI, MT, NS,
<i>Macronema burmeisteri</i> Banks 1924	Maes & Flint 1988, Maes 1999	CO
<i>Macronema variipenne</i> Flint & Bueno 1979	Flint and Bueno-Soria 1979, Maes & Flint 1988	AN, CO, MT, SJ
<i>Plectropsyche</i> sp.	Maes & Flint 1988, Maes 1999	AN
<i>Smicridea (Smicridea) bivittata</i> (Hagen) 1861	Maes & Flint 1988, Maes 1999	AN, JI, SJ
<i>Smicridea (Smicridea) cholta</i> Flint 1974		AN, ES
<i>Smicridea (Smicridea) gemina</i> Blahnik 1995	Blahnik 1995	AN
<i>Smicridea (Smicridea) gomphotheria</i> Blahnik 1995		AN
<i>Smicridea (Smicridea) hybrida</i> Blahnik 1995	Maes 1999	LE
<i>Smicridea (Rhyacophylax) inarmata</i> Flint 1974	Maes 1999	AN
<i>Smicridea (Smicridea) matagalpa</i> Flint 1974	Flint 1974, Maes & Flint 1988, Maes 1999	MT



<i>Smicridea (Smicridea) mirama</i> Flint & Denning 1989	Maes 1999	AN
<i>Smicridea (Rhyacophylax) murina</i> McLachlan 1871	Flint and Denning 1989, Maes & Flint 1988 as <i>magna</i>	NS
<i>Smicridea (Rhyacophylax) radula</i> Flint 1974	Maes 1999	AN
<i>Smicridea (Rhyacophylax) signata</i> (Banks) 1903	Bueno-Soria & Flint 1980, Maes & Flint 1988, Maes 1999	AN, CO, ES, NS
<i>Smicridea (Smicridea) ulva</i> Flint 1974	Flint 1974, Maes & Flint 1988, Maes 1999	AN, CO, ES, JI, MT
<i>Smicridea (Smicridea) varia</i> (Banks) 1913	Maes & Flint 1988, Maes 1999	CO, CI, GR, MT,NS, RI, SJ
<i>Synoestropsis punctipennis</i> Ulmer 1905	Maes & Flint 1988	AN
<b>Hydroptilidae (35)</b>		
<i>Anchitrichia spangleri</i> Flint 1970		SJ
<i>Costatrichia bipartita</i> Flint 1970	Flint 1970, Maes & Flint 1988, Maes 1999, Holzenthal & Harris 1999	AN, CO
<i>Costatrichia lodora</i> Mosely 1937		AN, JI
<i>Costatrichia simplex</i> Flint 1970	Holzenthal and Harris 1999, Maes 1999	SJ
<i>Flintiella</i> sp.	Maes 1999	AN
<i>Hydroptila ajax</i> Ross 1938		
<i>Hydroptila denza</i> Ross 1948	Maes 1999	LE
<i>Hydroptila grenadensis</i> Flint 1968	Maes 1999	AN, MS
<i>Hydroptila icona</i> Mosely 1937	Maes 1999	LE
<i>Hydroptila meralda</i> Mosely 1937		AN
<i>Hydroptila mexicana</i> Mosely 1937	Harris and Holzenthal 1999, Maes 1999	LE
<i>Hydroptila misolha</i> Bueno 1984	Maes & Flint 1988, Harris & Holz. 1999, Maes 1999	CO
<i>Hydroptila paradenza</i> Harris & Holzenthal 1999	Harris & Holzenthal 1999	
<i>Hydroptila paschia</i> Mosely 1937	Harris & Holzenthal 1999, Maes 1999	LE
<i>Hydroptila veracruzensis</i> Flint 1967	Harris & Holzenthal 1999, Maes 1999	ES, LE
<i>Leucotrichia sarita</i> Ross 1944		JI
<i>Mayatrichia ayama</i> Mosely 1937	Maes 1999	LE
<i>Mayatrichia rualda</i> Mosely 1937		JI

*Metrichia penicillata* Flint 1972

*Neotrichia esmalda* (Mosely) 1937

*Neotrichia hiaspa* (Mosely) 1937

*Neotrichia xicana* (Mosely) 1937

*Ochrotrichia panamensis* Flint 1972

*Ochrotrichia (Ochrotrichia) tagala* Flint 1972

*Orthotrichia aegerfasciella* (Chambers) 1873

*Oxyethira arizonica* Ross 1948

*Oxyethira (Loxotrichia) azteca* (Mosely) 1937

*Oxyethira (Loxotrichia) glasa* (Ross) 1941

*Oxyethira (Tanytrichia) hilosa* Holzenthal & Harris 1991

*Oxyethira simulatrix simulatrix* Flint 1968

*Oxyethira (Loxotrichia) tica* Holzenthal & Harris 1992

*Rhyacopsyche mexicana* (Flint) 1967

*Zumatichia echinata* Flint 1967

*Zumatichia filosa* Mosely 1937

*Zumatichia palmara* Flint 1970

### **Lepidostomatidae (1)**

*Lepidostoma steinhauseri* Flint & Bueno 1977

### **Leptoceridae (14)**

*Nectopsyche dorsalis* (Banks) 1901

*Nectopsyche gemmoides* Flint 1981

*Nectopsyche pavidata* (Hagen) 1861

*Nectopsyche spiloma* (Ross) 1944

*Nectopsyche tuanis* Holzenthal 1995

*Oecetis avara* (Banks) 1895

*Oecetis inconspicua* (Walker) 1852

*Oecetis punctipennis* (Ulmer) 1905

Maes 1999

AN, JI, LE

Maes 1999

AN

Flint 1972, Maes & Flint 1988, Maes 1999

JI  
MT

Maes 1999

CA, SJ

Maes 1999

CA

Maes 1999

LE

Maes 1999

AN  
LE

Maes 1999

AN

Flint 1970, Maes & Flint 1988, Maes 1999

AN  
CO

JI

Maes & Flint 1988, Maes 1999

AN, MT, NS

Maes & Flint 1988, Maes 1999, Holzenthal  
1995

AN, CO

Maes & Flint 1988, Maes 1999

CO, MT

Flint and Reyes 1991, Aguila 1992

Maes 1999

AN

Maes & Flint 1988, Maes 1999

AN, CO, CA,  
ES, GR, JI, LE

Maes & Flint 1988, Maes 1999

CA, GR, LE,  
AN, MS

Maes & Flint 1988, Maes 1999

AN

<i>Triaenodes anomalus</i> Flint 1967		JI
<i>Triaenodes clauseni</i> Holzenthal & Andersen 2004	Holzenthal & Andersen 2004	AN, JI
<i>Triaenodes kilambe</i> Holzenthal & Andersen 2004	Holzenthal & Andersen 2004	JI
<i>Triaenodes morai</i> Holzenthal & Andersen 2004	Holzenthal & Andersen 2004	AN, JI
<i>Triaenodes nicaraguensis</i> Holzenthal & Andersen 2004	Holzenthal & Andersen 2004	AN, MT
<i>Triplectides flintorum</i> Holzenthal 1989	Maes & Flint 1988 (as <i>gracilis</i> ), Maes 1999	AN, JI
<b>Odontoceridae (2)</b>		
<i>Marilia fasciculata</i> Banks 1913	Maes 1999	AN
<i>Marilia flexuosa</i> Ulmer 1905		AN, JI
<b>Philopotamidae (36)</b>		
<i>Chimarra (Chimarra) acuta</i> Ross 1959	Maes & Flint 1988 (as <i>boneti</i> ), Blahnik 1998	AN, CO, ES
<i>Chimarra (Chimarra) adelphe</i> Blahnik 1998	Blahnik 1998	
<i>Chimarra (Chimarra) alata</i> Bueno 1983	Maes & Flint 1988, Maes 1999, Blahnik 1998	ES, JI, MT
<i>Chimarra (Chimarra) amica</i> Blahnik & Holzenthal 1992		AN
<i>Chimarra (Chimarra) angustipennis</i> (Banks) 1903	Maes 1999	AN
<i>Chimarra (Curgia) aureopunctata</i> Flint 1967	Maes & Flint 1988, Flint 1998?, Maes 1999	AN, MT, NS
<i>Chimarra (Curgia) banksi</i> (Ulmer) 1907	Ulmer 1907, Maes & Flint 1988, Maes 1999	AN, CI
<i>Chimarra (Chimarra) bicolor</i> (Banks) 1901	Maes & Flint 1988, Maes 1999	BO, CO, MT
<i>Chimarra (Curgia) barrettae</i> (Banks) 1900	Maes 1999	AN, JI
<i>Chimarra (Chimarra) caribea</i> Flint 1968		SJ
<i>Chimarra (Curgia) centralis</i> Ross 1959		AN
<i>Chimarra (Chimarra) dentosa</i> Ross 1944	Maes & Flint 1988, Maes 1999	CI, NS
<i>Chimarra (Chimarra) duckworthi</i> Flint 1967		AN, JI
<i>Chimarra (Chimarra) elia</i> Ross 1944	Maes & Flint 1988, Blahnik 1998, Maes 1999	CI, LE, MT, AN
<i>Chimarra (Chimarra) embia</i> Ross 1959	Maes & Flint 1988, Blah. 1998, Maes 1999	CO, ES, LE
<i>Chimarra (Chimarra) emima</i> Ross 1959	Blahnik 1998	
<i>Chimarra (Chimarra) flinti</i> Bueno 1985	Blahnik 1998	AN, ES, JI
<i>Chimarra (Chimarra) gibba</i> Blahnik 1998		JI
<i>Chimarra (Chimarra) guatemalensis</i> Blahnik 1998	Maes 1999	JI
<i>Chimarra (Curgia) laguna</i> Ross 1951	Flint 1998	AN
<i>Chimarra (Chimarra) lata</i> Blahnik & Holzenthal 1992		AN, SJ
<i>Chimarra (Chimarra) paraortiziana</i> Blahnik & Holzenthal 1992	Blahnik and Holzenthal 1992, Blahnik 1998	AN, ES, JI, SJ
<i>Chimarra (Curgia) pablito</i> Flint	Maes 1999	AN
<i>Chimarra (Chimarra) peineti</i> Blahnik & Holzenthal 1992	Maes 1999	AN, JI, SJ

<i>Chimarra (Curgia) persimilis</i> (Banks) 1920	Maes & Flint 1988, Flint 1998, Maes 1999	AN, CO
<i>Chimarra (Chimarra) picea</i> (Navás) 1924	Blahnik 1998	
<i>Chimarra (Chimarra) pollex</i> Blahnik & Holzenthal 1992	Maes 1999	AN, JI, SJ
<i>Chimarra (Chimarra) ridleyi</i> (Denning) 1941		AN, ES
<i>Chimarra (Chimarra) setosa</i> Ross 1959	Maes 1999	AN
<i>Chimarra (Chimarra) solisi</i> Blahnik & Holzenthal 1992	Maes 1999	AN
<i>Chimarra (Otarra) rossi</i> Bueno 1985		AN, SJ
<i>Chimarra (Curgia) spatulata</i> Ross 1959	Maes & Flint 1988, Flint 1998, Maes 1999	AN, BO
<i>Chimarra (Chimarra) villalobosi</i> Bueno 1985	Maes 1999	CA, JI, MT
<i>Wormaldia dampfi</i> Ross & King, in Ross 1956		JI
<i>Wormaldia matagalpa</i> Flint 1995	Flint 1995	MT
<i>Wormaldia planae</i> Ross & King, in Ross 1956	Maes 1999	MT
<b>Polycentropodidae (24)</b>		
<i>Cernotina astra</i> Ross 1941	Maes & Flint 1988	JI, AN
<i>Cernotina calcea</i> Ross 1938	Maes & Flint 1988, Bueno-Soria and Flint 1978?	ES
<i>Cernotina pallida</i> (Banks) 1904	Maes 1999	SJ
<i>Cernotina riosanjuanensis</i> Chamorro-Lacayo 2003	Chamorro-Lacayo 2003	SJ
<i>Cernotina taeniata</i> Ross 1951		AN, JI, MT
<i>Cernotina uncifera</i> Ross 1951		RI
<i>Cyrnellus fraternus</i> (Banks) 1905	Maes & Flint 1988	AN, GR, RI
<i>Cyrnellus zapateriensis</i> Chamorro-Lacayo 2003	Chamorro-Lacayo 2003	GR
<i>Polycentropus altmani</i> Yamamoto 1961	Maes & Flint 1988	CO, JI
<i>Polycentropus fortispinus</i> Holzenthal & Hamilton 1988	Maes 1999	AN, MT
<i>Polycentropus guatemalensis</i> Flint 1967	Flint 1967, Maes & Flint 1988	ES, JI, MD, MT,
<i>Polycentropus hamiltoni</i> Chamorro-Lacayo 2003	Chamorro-Lacayo 2003	AN
<i>Polycentropus holzenthali</i> Bueno & Hamilton 1986	Maes 1999	AN
<i>Polycentropus mayanus</i> Flint 1981		AN, MT
<i>Polycentropus zanclus</i> Flint 1981		JI
<i>Polyplectropus bravoae</i> Bueno 1990	Maes 1999	AN, SJ
<i>Polyplectropus charlesi</i> (Ross) 1941	Bueno 1990	ES, CO
<i>Polyplectropus denticulus</i> Bueno 1990	Bueno 1990	AN, JI, MT
<i>Polyplectropus laminatus</i> (Yamamoto) 1967	Maes & Flint 1988, Maes 1999	AN
<i>Polyplectropus maesi</i> Chamorro-Lacayo 2003	Chamorro-Lacayo 2003	AN
<i>Polyplectropus mignona</i> Bueno 1990	Bueno-Soria 1990	CO

<i>Polyplectropus nicaraguensis</i> Chamorro-Lacayo 2003	Chamorro-Lacayo 2003	AN
<i>Polyplectropus santiago</i> (Ross) 1947	Maes & Flint 1988, Bueno 1990, Maes 1999	
<i>Polyplectropus yolandae</i> Chamorro-Lacayo & Holzenthal 2004		AN
<b>Xiphocentronidae (3)</b>		
<i>Cnodocentron (Caenocentron) lausus</i> Schmid 1982	Schmid 1982, Maes & Flint 1988	CO
<i>Machairocentron</i> sp.		CA
<i>Xiphocentron</i> sp.	Maes & Flint 1988, Maes 1999	AN, MT

AN – Region Autonoma del Atlantico Norte (RAAN)

BO – Boaco

CA – Carazo

CI – Chinandega

CO – Chontales

ES – Estelí

GR – Granada

JI – Jinotega

LE – León

MD – Madriz

MS – Masaya

MT – Matagalpa

NS – Nueva Segovia

RI – Rivas

SJ – Rio San Juan