

SAFIT

Southwest Association of Freshwater
Invertebrate Taxonomists

www.safit.org – current homepage

Southwest As. Freshwater Invertebrate Taxonomists

SAFIT.org

The mission of the Southwest Association of Freshwater Invertebrate Taxonomists (SAFIT) is to promote understanding of the taxonomy and systematics of inland freshwater invertebrates in support of biotic condition of inland aquatic ecosystems of the southwestern United States. Fundamental to this mission is the standardization of identification and reporting of freshwater invertebrate taxa. SAFIT fosters scientific research, education, and professional development in the environmental sciences, as they pertain to inland freshwater invertebrate taxonomy. To accomplish this mission SAFIT will:

1. Establish standard taxonomic procedures.
2. Provide/maintain standard taxonomic effort document.
3. Facilitate information exchange.
4. Improve taxonomic QA/QC methods.
5. Promote scientific and educational programs.

Joseph Slusark
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SOUTHWEST ASSOCIATION OF FRESHWATER INVERTEBRATE TAXONOMISTS

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Contact Us

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Standard Taxonomic Effort



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Standard Taxonomic Effort

[The STE SAFIT List of Freshwater Macroinvertebrate Taxa from California and Adjacent States including Standard Taxonomic Effort Levels \(.pdf\)](#)

November 28, 2006 - Defines the standard taxonomic effort level information for the identification of aquatic invertebrates from California and adjacent states, and provides limited taxonomic, distribution and habitat information. This STE supercedes the CAMLnet 27 January 2003 List of Californian Macroinvertebrate Taxa.

[SAFIT Rules for the Development and Maintenance of the Standard Level of Taxonomic Effort \(.pdf\)](#)

November 28, 2006 - Adopted at SAFIT's 2006 Fall meeting, the Rules document governs the inclusion of names in the STE, and establishes procedures for maintaining and updating the STE.

[SAFIT Taxonomic Literature Database \(.enl\)](#)

A bibliographic database created with EndNote (version X). This EndNote Library File includes searchable keywords for many references. At present, the database includes all references cited in the STE and Master Source File as well as other taxonomic and ecological references applicable to western aquatic invertebrates.

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Please start my SAFIT membership for the year January, 20____

Payment in U.S funds drawn on U.S. bank is required. Checks and Money Orders should be made payable to the Southwest Association of Freshwater Invertebrate Taxonomists Or SAFIT. (Memberships apply to the calendar year.)

I enclose my check or money order for \$ _____

SAFIT membership

☐ Regular member \$25.00

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mail this application to:

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Related Links

[Surface Water Ambient Monitoring Program](#) is a statewide monitoring effort designed to assess the conditions of surface waters throughout the state of California.

California Department of Fish and Game's [Aquatic Bioassessment Laboratory \(ABL\)](#)

The mission of the ABL (*part of DFG's [Water Pollution Control Laboratory](#)*) is to support the use of biology in California's water quality management and assessment programs.

The [North American Benthological Society](#) (NABS) is an international scientific organization whose purpose is to promote better understanding of the biotic communities of lake and stream bottoms and their role in aquatic ecosystems, by providing media and disseminating new investigation results, new interpretations, and other benthological information to aquatic biologists and to the scientific community at large.

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Quick links (family-level):












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Note: Many pages are still under construction. We will update our content as quickly as possible. If you find a page that is missing or incomplete, please check back at a later date.

Orders (Click the banner to jump to a specific order within the family-level page)	Habitus photo (Click thumbnail for larger image)	Distinguishing characteristics
		Three "tails" or cerci, with gills on abdomen (either dorsal or lateral, usually plate-like) and one tarsal claw.
		Mask-like labium; gills are internalized within the abdomen (Dragonflies) or external on the end of the abdomen (Damselflies).

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 Plecoptera		Two "tails" or cerci; gills (either plumose or finger-like) present on thorax, or on thorax and first few abdominal segments, two tarsal claws.
 Hemiptera		"Half wings" – first set of wings half membranous and half sclerotized (looks like an "X"); piercing-sucking mouthparts
 Megaloptera		Well-developed mandibles, four-segmented antennae. Head and abdomen are patterned; the head is also quadrate. Two claws on thoracic legs. Segmented lateral gills on abdomen.
 Neuroptera		Long antennae, slender legs with single claws. Transparent gills on ventral side of abdominal segments. Mouthparts elongate and unsegmented.
 Trichoptera		No "tails," just anal prolegs with claws; thorax partially or fully sclerotized, membranous abdomen. May have a "case" built of various materials
 Lepidoptera		Head is distinct with a ring of simple eyes. Thorax and legs are segmented. Prolegs and anal prolegs present on abdominal segments.
 Coleoptera		No anal prolegs but possibly claws. Bodies of larve may be completely sclerotized; adults have a hardened first pair of wings ("elytra").
 Diptera		Head may be sclerotized (and visible) or reduced. Legs are not sclerotized. Body fleshy (possibly with clawed prolegs) with various types of breathing structures on the tail end.
 Non-Insects		Various characteristics, please see non-insects page.

Family Level Pages

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Aquatic Bioassessment Laboratory



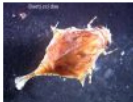







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Ephemeroptera

						
Ameletidae	Ametropodidae	Baetidae	Baetiscidae	Caenidae	Ephemerellidae	Ephemeridae
						
Heptageniidae	Isonymphidae	Leptophlebiidae	Leptophlebiidae	Oligoneuriidae	Polymitarcyidae	Siphonuridae

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Ephemeroptera

Ephemerellidae



Key Characters	Abdominal gills absent on segment 2, rudimentary or absent on segment 1, present on segments 3-7 or 4-7. Gills have dorsal and ventral lamella (with numerous lobes). Paired abdominal tubercles often present.
Tolerance	
Distribution	CA, OR, WA, NV, AZ, Baja

Thumbnails linked to larger pic



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[Level 1 Taxonomy \(Click the link to go to the page for that genus\)](#)

Ephemeroptera

Ameletidae

[*Ameletus* sp.](#)

Ametropodidae

[*Ametropus* sp.](#)

Baetidae

[*Acentrella* sp.](#)

[*Acerpenna* sp.](#)

[*Apobaetis* sp.](#)

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Dicosmoecus sp.



Key Characters	
Tolerance	
Distribution	CA

Level 2 pages

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Ameletidae

Ameletus sp. - identify to genus (level 1 only)

Ametropodidae

Ametropus ammophilus Allen and Edwards

Baetidae

Acentrella insignificans (McDunnough)

Acentrella turbida (McDunnough)

Acerpenna sp. - identify to genus (level 1 only)

Apobaetis etowah (Traver)

Baetis adonis Traver

Baetis alius Day

Baetis bicaudatus Dodds

Baetis caurinus Edmunds and Allen

Level 2 pages

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Baetis tricaudatus Dodds



Key Characters	
Tolerance	
Distribution	CA, OR, WA, NV, AZ

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- www.dfg.ca.gov/abl/Lab/california_referencecollection.asp
- Organized into three sets of pages - Family Level, SAFIT Level 1, and SAFIT Level 2
- Built as a resource for Citizen Monitoring Groups (Family Level) and professional taxonomists, and as an educational tool
- Special thanks to Erick Burres (Citizen Monitoring Coordinator – SWRCB) for partial funding, and Brian Taylor (ABL) for page development