

Category	Popular name of the group	Phylum	Class
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Vertebrate	Reptile	Chordata	Reptilia
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Invertebrate	Arthropod	Arthropoda	Insecta
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Reptile	Chordata	Reptilia
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Mollusk	Mollusca	Bivalvia
Vertebrate	Amphibian	Chordata	Amphibia
Invertebrate	Arthropod	Arthropoda	Insecta
Vertebrate	Fish	Chordata	Actinopterygii
Invertebrate	Mollusk	Mollusca	Bivalvia
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Reptile	Chordata	Reptilia
Vertebrate	Reptile	Chordata	Reptilia
Vertebrate	Reptile	Chordata	Reptilia
Vertebrate	Fish	Chordata	Actinopterygii
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Invertebrate	Arthropod	Arthropoda	Insecta

Invertebrate	Arthropod	Arthropoda	Insecta
Vertebrate	Mammal	Chordata	Mammalia
Vertebrate	Fish	Chordata	Actinopterygii
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Vertebrate	Mammal	Chordata	Mammalia
Invertebrate	Arthropod	Arthropoda	Insecta
Vertebrate	Amphibian	Chordata	Amphibia
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Vertebrate	Reptile	Chordata	Reptilia
Vertebrate	Reptile	Chordata	Reptilia
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Amphibian	Chordata	Amphibia
Vertebrate	Fish	Chordata	Actinopterygii
Invertebrate	Arthropod	Arthropoda	Insecta
Vertebrate	Fish	Chordata	Actinopterygii
Invertebrate	Arthropod	Arthropoda	Insecta
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Invertebrate	Arthropod	Arthropoda	Arachnida
Invertebrate	Arthropod	Arthropoda	Arachnida
Invertebrate	Arthropod	Arthropoda	Arachnida
Invertebrate	Arthropod	Arthropoda	Arachnida
Vertebrate	Fish	Chordata	Actinopterygii
Invertebrate	Arthropod	Arthropoda	Insecta
Vertebrate	Reptile	Chordata	Reptilia
Vertebrate	Reptile	Chordata	Reptilia
Vertebrate	Reptile	Chordata	Reptilia
Vertebrate	Mammal	Chordata	Mammalia
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Vertebrate	Mammal	Chordata	Mammalia
Vertebrate	Reptile	Chordata	Reptilia
Vertebrate	Amphibian	Chordata	Amphibia
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Vertebrate	Mammal	Chordata	Mammalia
Vertebrate	Mammal	Chordata	Mammalia
Vertebrate	Mammal	Chordata	Mammalia

Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Vertebrate	Fish	Chordata	Actinopterygii
Invertebrate	Arthropod	Arthropoda	Insecta
Vertebrate	Fish	Chordata	Actinopterygii
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Invertebrate	Arthropod	Arthropoda	Malacostraca
Invertebrate	Arthropod	Arthropoda	Malacostraca
Invertebrate	Arthropod	Arthropoda	Arachnida
Vertebrate	Mammal	Chordata	Mammalia
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Mammal	Chordata	Mammalia
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Mammal	Chordata	Mammalia
Vertebrate	Mammal	Chordata	Mammalia
Vertebrate	Reptile	Chordata	Reptilia
Vertebrate	Reptile	Chordata	Reptilia
Vertebrate	Reptile	Chordata	Reptilia
Invertebrate	Arthropod	Arthropoda	Insecta
Vertebrate	Amphibian	Chordata	Amphibia
Invertebrate	Arthropod	Arthropoda	Insecta
Vertebrate	Mammal	Chordata	Mammalia
Vertebrate	Mammal	Chordata	Mammalia

Vertebrate	Mammal	Chordata	Mammalia
Vertebrate	Mammal	Chordata	Mammalia
Vertebrate	Mammal	Chordata	Mammalia
Invertebrate	Mollusk	Mollusca	Bivalvia
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Reptile	Chordata	Reptilia
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Mollusk	Mollusca	Bivalvia
Invertebrate	Mollusk	Mollusca	Bivalvia
Invertebrate	Mollusk	Mollusca	Bivalvia
Vertebrate	Fish	Chordata	Actinopterygii
Invertebrate	Arthropod	Arthropoda	Insecta
Vertebrate	Reptile	Chordata	Reptilia
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Mammal	Chordata	Mammalia
Vertebrate	Mammal	Chordata	Mammalia
Invertebrate	Arthropod	Arthropoda	Insecta
Vertebrate	Bird	Chordata	Aves
Vertebrate	Bird	Chordata	Aves
Vertebrate	Amphibian	Chordata	Amphibia
Vertebrate	Amphibian	Chordata	Amphibia
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Bird	Chordata	Aves
Invertebrate	Nematode	Nematoda	Chromadorea
Vertebrate	Reptile	Chordata	Reptilia
Vertebrate	Fish	Chordata	Actinopterygii
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Vertebrate	Reptile	Chordata	Reptilia
Vertebrate	Reptile	Chordata	Reptilia
Vertebrate	Reptile	Chordata	Reptilia

Vertebrate	Reptile	Chordata	Reptilia
Vertebrate	Reptile	Chordata	Reptilia
Vertebrate	Reptile	Chordata	Reptilia
Vertebrate	Reptile	Chordata	Reptilia
Vertebrate	Mammal	Chordata	Mammalia
Vertebrate	Mammal	Chordata	Mammalia
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Vertebrate	Mammal	Chordata	Mammalia
Vertebrate	Fish	Chordata	Actinopterygii
Invertebrate	Arthropod	Arthropoda	Insecta
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Reptile	Chordata	Reptilia
Vertebrate	Mammal	Chordata	Mammalia
Vertebrate	Mammal	Chordata	Mammalia
Vertebrate	Mammal	Chordata	Mammalia
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Flatworm	Platyhelminthes	Cestoda
Vertebrate	Bird	Chordata	Aves
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Bird	Chordata	Aves
Vertebrate	Bird	Chordata	Aves
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Invertebrate	Arthropod	Arthropoda	Insecta
Vertebrate	Mammal	Chordata	Mammalia
Vertebrate	Mammal	Chordata	Mammalia
Invertebrate	Arthropod	Arthropoda	Insecta
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Mammal	Chordata	Mammalia
Invertebrate	Mollusk	Mollusca	Bivalvia
Invertebrate	Mollusk	Mollusca	Gastropoda
Vertebrate	Mammal	Chordata	Mammalia
Vertebrate	Fish	Chordata	Actinopterygii
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii

Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Tunicate	Chordata	Ascidacea
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Invertebrate	Mollusk	Mollusca	Bivalvia
Vertebrate	Reptile	Chordata	Reptilia
Vertebrate	Reptile	Chordata	Reptilia
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Bird	Chordata	Aves
Vertebrate	Bird	Chordata	Aves
Vertebrate	Reptile	Chordata	Reptilia
Invertebrate	Arthropod	Arthropoda	Insecta
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Invertebrate	Arthropod	Arthropoda	Insecta
Vertebrate	Fish	Chordata	Actinopterygii
Invertebrate	Mollusk	Mollusca	Gastropoda
Vertebrate	Reptile	Chordata	Reptilia
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Vertebrate	Reptile	Chordata	Reptilia
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Mammal	Chordata	Mammalia
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Bird	Chordata	Aves
Invertebrate	Mollusk	Mollusca	Bivalvia
Invertebrate	Mollusk	Mollusca	Bivalvia
Invertebrate	Mollusk	Mollusca	Bivalvia
Invertebrate	Mollusk	Mollusca	Bivalvia
Invertebrate	Mollusk	Mollusca	Bivalvia
Invertebrate	Mollusk	Mollusca	Bivalvia
Vertebrate	Fish	Chordata	Actinopterygii

Vertebrate	Mammal	Chordata	Mammalia
Vertebrate	Reptile	Chordata	Reptilia
Vertebrate	Reptile	Chordata	Reptilia
Vertebrate	Reptile	Chordata	Reptilia
Vertebrate	Reptile	Chordata	Reptilia
Vertebrate	Reptile	Chordata	Reptilia
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Invertebrate	Arthropod	Arthropoda	Insecta
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Invertebrate	Arthropod	Arthropoda	Arachnida
Vertebrate	Fish	Chordata	Actinopterygii
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Invertebrate	Arthropod	Arthropoda	Arachnida
Vertebrate	Fish	Chordata	Actinopterygii
Invertebrate	Arthropod	Arthropoda	Insecta
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Mammal	Chordata	Mammalia
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Flatworm	Platyhelminthes	Turbellaria
Vertebrate	Amphibian	Chordata	Amphibia
Vertebrate	Amphibian	Chordata	Amphibia
Vertebrate	Amphibian	Chordata	Amphibia
Vertebrate	Amphibian	Chordata	Amphibia
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Vertebrate	Mammal	Chordata	Mammalia
Vertebrate	Mammal	Chordata	Mammalia
Vertebrate	Mammal	Chordata	Mammalia
Invertebrate	Arthropod	Arthropoda	Insecta
Vertebrate	Mammal	Chordata	Mammalia
Vertebrate	Fish	Chordata	Actinopterygii
Invertebrate	Arthropod	Arthropoda	Insecta
Vertebrate	Mammal	Chordata	Mammalia
Vertebrate	Fish	Chordata	Actinopterygii

Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Vertebrate	Mammal	Chordata	Mammalia
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Vertebrate	Mammal	Chordata	Mammalia
Vertebrate	Fish	Chordata	Actinopterygii
Invertebrate	Arthropod	Arthropoda	Insecta
Vertebrate	Reptile	Chordata	Reptilia
Vertebrate	Amphibian	Chordata	Amphibia
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Mollusk	Mollusca	Bivalvia
Invertebrate	Mollusk	Mollusca	Bivalvia
Invertebrate	Mollusk	Mollusca	Bivalvia
Invertebrate	Mollusk	Mollusca	Bivalvia
Vertebrate	Bird	Chordata	Aves
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta

Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Vertebrate	Fish	Chordata	Actinopterygii
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Invertebrate	Annelid	Annelida	Oligochaeta
Vertebrate	Bird	Chordata	Aves
Vertebrate	Reptile	Chordata	Reptilia
Vertebrate	Reptile	Chordata	Reptilia
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Reptile	Chordata	Reptilia
Invertebrate	Arthropod	Arthropoda	Insecta
Vertebrate	Amphibian	Chordata	Amphibia
Vertebrate	Amphibian	Chordata	Amphibia
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Diplopoda
Invertebrate	Arthropod	Arthropoda	Arachnida
Invertebrate	Mollusk	Mollusca	Bivalvia
Invertebrate	Mollusk	Mollusca	Bivalvia
Invertebrate	Mollusk	Mollusca	Bivalvia
Invertebrate	Mollusk	Mollusca	Bivalvia
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Vertebrate	Reptile	Chordata	Reptilia
Vertebrate	Reptile	Chordata	Reptilia
Vertebrate	Reptile	Chordata	Reptilia
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Mammal	Chordata	Mammalia
Vertebrate	Mammal	Chordata	Mammalia
Vertebrate	Mammal	Chordata	Mammalia
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Vertebrate	Mammal	Chordata	Mammalia
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Mammal	Chordata	Mammalia

Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Bird	Chordata	Aves
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Vertebrate	Fish	Chordata	Actinopterygii
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Vertebrate	Mammal	Chordata	Mammalia
Vertebrate	Reptile	Chordata	Reptilia
Vertebrate	Reptile	Chordata	Reptilia
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Flatworm	Platyhelminthes	Trematoda
Invertebrate	Mollusk	Mollusca	Gastropoda
Invertebrate	Flatworm	Platyhelminthes	Trematoda
Invertebrate	Arthropod	Arthropoda	Insecta
Vertebrate	Reptile	Chordata	Reptilia
Vertebrate	Reptile	Chordata	Reptilia
Vertebrate	Fish	Chordata	Actinopterygii
Invertebrate	Arthropod	Arthropoda	Insecta
Vertebrate	Bird	Chordata	Aves
Vertebrate	Reptile	Chordata	Reptilia
Invertebrate	Arthropod	Arthropoda	Insecta
Vertebrate	Reptile	Chordata	Reptilia
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii

Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Invertebrate	Mollusk	Mollusca	Gastropoda
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Invertebrate	Arthropod	Arthropoda	Insecta
Vertebrate	Fish	Chordata	Actinopterygii
Invertebrate	Arthropod	Arthropoda	Insecta
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Mollusk	Mollusca	Bivalvia
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Reptile	Chordata	Reptilia
Vertebrate	Reptile	Chordata	Reptilia
Vertebrate	Reptile	Chordata	Reptilia
Invertebrate	Arthropod	Arthropoda	Insecta
Vertebrate	Mammal	Chordata	Mammalia

Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Invertebrate	Arthropod	Arthropoda	Insecta
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Mammal	Chordata	Mammalia
Vertebrate	Amphibian	Chordata	Amphibia
Vertebrate	Amphibian	Chordata	Amphibia
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Vertebrate	Amphibian	Chordata	Amphibia
Vertebrate	Amphibian	Chordata	Amphibia
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Reptile	Chordata	Reptilia
Vertebrate	Reptile	Chordata	Reptilia
Invertebrate	Mollusk	Mollusca	Bivalvia

Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Vertebrate	Amphibian	Chordata	Amphibia
Vertebrate	Reptile	Chordata	Reptilia
Vertebrate	Reptile	Chordata	Reptilia
Invertebrate	Arthropod	Arthropoda	Insecta
Vertebrate	Reptile	Chordata	Reptilia
Vertebrate	Reptile	Chordata	Reptilia
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Invertebrate	Arthropod	Arthropoda	Insecta
Vertebrate	Mammal	Chordata	Mammalia
Vertebrate	Lamprey	Chordata	Cephalaspidomorphi
Vertebrate	Mammal	Chordata	Mammalia
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Invertebrate	Arthropod	Arthropoda	Insecta
Vertebrate	Mammal	Chordata	Mammalia

Vertebrate	Mammal	Chordata	Mammalia
Vertebrate	Fish	Chordata	Actinopterygii
Invertebrate	Arthropod	Arthropoda	Insecta
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Reptile	Chordata	Reptilia
Vertebrate	Reptile	Chordata	Reptilia
Vertebrate	Reptile	Chordata	Reptilia
Vertebrate	Reptile	Chordata	Reptilia
Vertebrate	Reptile	Chordata	Reptilia
Vertebrate	Reptile	Chordata	Reptilia
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Vertebrate	Amphibian	Chordata	Amphibia
Vertebrate	Amphibian	Chordata	Amphibia
Vertebrate	Amphibian	Chordata	Amphibia
Vertebrate	Amphibian	Chordata	Amphibia
Vertebrate	Fish	Chordata	Actinopterygii
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Vertebrate	Lamprey	Chordata	Cephalaspidomorphi
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Reptile	Chordata	Reptilia
Vertebrate	Reptile	Chordata	Reptilia
Vertebrate	Fish	Chordata	Actinopterygii

Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Invertebrate	Arthropod	Arthropoda	Insecta
Vertebrate	Mammal	Chordata	Mammalia
Vertebrate	Mammal	Chordata	Mammalia
Vertebrate	Mammal	Chordata	Mammalia
Vertebrate	Mammal	Chordata	Mammalia
Vertebrate	Mammal	Chordata	Mammalia
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Vertebrate	Mammal	Chordata	Mammalia
Vertebrate	Mammal	Chordata	Mammalia
Invertebrate	Mollusk	Mollusca	Bivalvia
Invertebrate	Mollusk	Mollusca	Bivalvia
Invertebrate	Flatworm	Platyhelminthes	Turbellaria
Invertebrate	Flatworm	Platyhelminthes	Turbellaria
Vertebrate	Mammal	Chordata	Mammalia
Vertebrate	Mammal	Chordata	Mammalia
Invertebrate	Mollusk	Mollusca	Veneriodes
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Vertebrate	Fish	Chordata	Actinopterygii
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Vertebrate	Mammal	Chordata	Mammalia
Vertebrate	Mammal	Chordata	Mammalia
Vertebrate	Mammal	Chordata	Mammalia
Vertebrate	Mammal	Chordata	Mammalia
Vertebrate	Mammal	Chordata	Mammalia

Vertebrate	Mammal	Chordata	Mammalia
Vertebrate	Mammal	Chordata	Mammalia
Vertebrate	Reptile	Chordata	Reptilia
Invertebrate	Arthropod	Arthropoda	Insecta
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Bird	Chordata	Aves
Vertebrate	Fish	Chordata	Actinopterygii
Invertebrate	Mollusk	Mollusca	Gastropoda
Vertebrate	Bird	Chordata	Aves
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Mammal	Chordata	Mammalia
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Mammal	Chordata	Mammalia
Vertebrate	Mammal	Chordata	Mammalia
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Mammal	Chordata	Mammalia
Invertebrate	Mollusk	Mollusca	Gastropoda
Invertebrate	Mollusk	Mollusca	Bivalvia
Vertebrate	Mammal	Chordata	Mammalia
Invertebrate	Arthropod	Arthropoda	Arachnida
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Invertebrate	Mollusk	Mollusca	Bivalvia
Vertebrate	Mammal	Chordata	Mammalia
Vertebrate	Mammal	Chordata	Mammalia
Vertebrate	Mammal	Chordata	Mammalia
Vertebrate	Mammal	Chordata	Mammalia
Vertebrate	Mammal	Chordata	Mammalia
Vertebrate	Mammal	Chordata	Mammalia
Vertebrate	Mammal	Chordata	Mammalia
Vertebrate	Mammal	Chordata	Mammalia
Vertebrate	Mammal	Chordata	Mammalia
Vertebrate	Mammal	Chordata	Mammalia
Vertebrate	Fish	Chordata	Actinopterygii
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta

Vertebrate	Reptile	Chordata	Reptilia
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Vertebrate	Reptile	Chordata	Reptilia
Vertebrate	Reptile	Chordata	Reptilia
Vertebrate	Fish	Chordata	Actinopterygii
Invertebrate	Arthropod	Arthropoda	Insecta
Vertebrate	Fish	Chordata	Actinopterygii
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Vertebrate	Mammal	Chordata	Mammalia
Invertebrate	Mollusk	Mollusca	Bivalvia
Vertebrate	Fish	Chordata	Actinopterygii
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Mollusk	Mollusca	Bivalvia
Vertebrate	Mammal	Chordata	Mammalia
Vertebrate	Mammal	Chordata	Mammalia
Vertebrate	Mammal	Chordata	Mammalia
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Annelid	Annelida	Clitellata
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Mammal	Chordata	Mammalia
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Vertebrate	Fish	Chordata	Actinopterygii
Invertebrate	Arthropod	Arthropoda	Insecta
Vertebrate	Mammal	Chordata	Mammalia
Vertebrate	Mammal	Chordata	Mammalia
Vertebrate	Mammal	Chordata	Mammalia
Vertebrate	Fish	Chordata	Actinopterygii
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Amphibian	Chordata	Amphibia
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Vertebrate	Fish	Chordata	Actinopterygii

Vertebrate	Fish	Chordata	Actinopterygii
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Vertebrate	Amphibian	Chordata	Amphibia
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Annelid	Annelida	Polychaeta
Invertebrate	Annelid	Annelida	Polychaeta
Invertebrate	Annelid	Annelida	Polychaeta
Invertebrate	Annelid	Annelida	Polychaeta
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Reptile	Chordata	Reptilia
Vertebrate	Reptile	Chordata	Reptilia
Vertebrate	Reptile	Chordata	Reptilia
Vertebrate	Reptile	Chordata	Reptilia
Vertebrate	Reptile	Chordata	Reptilia
Vertebrate	Amphibian	Chordata	Amphibia
Vertebrate	Amphibian	Chordata	Amphibia
Vertebrate	Amphibian	Chordata	Amphibia
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Vertebrate	Mammal	Chordata	Mammalia
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Mammal	Chordata	Mammalia
Vertebrate	Fish	Chordata	Actinopterygii
Invertebrate	Arthropod	Arthropoda	Insecta
Vertebrate	Mammal	Chordata	Mammalia
Invertebrate	Mollusk	Mollusca	Gastropoda
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Invertebrate	Arthropod	Arthropoda	Insecta

Invertebrate	Arthropod	Arthropoda	Insecta
Vertebrate	Mammal	Chordata	Mammalia
Vertebrate	Mammal	Chordata	Mammalia
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Invertebrate	Echinoderm	Echinodermata	Echinoidea
Invertebrate	Arthropod	Arthropoda	Insecta
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Invertebrate	Arthropod	Arthropoda	Arachnida
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Vertebrate	Fish	Chordata	Actinopterygii
Invertebrate	Arthropod	Arthropoda	Arachnida
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Vertebrate	Fish	Chordata	Actinopterygii

Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Invertebrate	Mollusk	Mollusca	Bivalvia
Invertebrate	Mollusk	Mollusca	Bivalvia
Vertebrate	Reptile	Chordata	Reptilia
Vertebrate	Reptile	Chordata	Reptilia
Vertebrate	Amphibian	Chordata	Amphibia
Vertebrate	Amphibian	Chordata	Amphibia
Vertebrate	Amphibian	Chordata	Amphibia
Vertebrate	Reptile	Chordata	Reptilia
Invertebrate	Mollusk	Mollusca	Bivalvia
Vertebrate	Mammal	Chordata	Mammalia
Invertebrate	Mollusk	Mollusca	Bivalvia
Invertebrate	Mollusk	Mollusca	Bivalvia
Vertebrate	Lamprey	Chordata	Cephalaspidomorphi
Vertebrate	Reptile	Chordata	Reptilia
Vertebrate	Fish	Chordata	Actinopterygii
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Vertebrate	Amphibian	Chordata	Amphibia
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Arachnida
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Reptile	Chordata	Reptilia
Vertebrate	Reptile	Chordata	Reptilia
Vertebrate	Reptile	Chordata	Reptilia
Invertebrate	Arthropod	Arthropoda	Insecta
Vertebrate	Mammal	Chordata	Mammalia
Vertebrate	Amphibian	Chordata	Amphibia
Vertebrate	Amphibian	Chordata	Amphibia

Vertebrate	Amphibian	Chordata	Amphibia
Vertebrate	Amphibian	Chordata	Amphibia
Vertebrate	Amphibian	Chordata	Amphibia
Vertebrate	Amphibian	Chordata	Amphibia
Vertebrate	Amphibian	Chordata	Amphibia
Vertebrate	Amphibian	Chordata	Amphibia
Vertebrate	Mammal	Chordata	Mammalia
Vertebrate	Mammal	Chordata	Mammalia
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Vertebrate	Mammal	Chordata	Mammalia
Vertebrate	Mammal	Chordata	Mammalia
Vertebrate	Mammal	Chordata	Mammalia
Vertebrate	Amphibian	Chordata	Amphibia
Vertebrate	Amphibian	Chordata	Amphibia
Invertebrate	Arthropod	Arthropoda	Insecta
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Mammal	Chordata	Mammalia
Vertebrate	Reptile	Chordata	Reptilia
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Cnidaria	Cnidaria	Anthozoa
Invertebrate	Annelid	Annelida	Polychaeta
Vertebrate	Mammal	Chordata	Mammalia
Vertebrate	Mammal	Chordata	Mammalia
Vertebrate	Fish	Chordata	Actinopterygii
Invertebrate	Arthropod	Arthropoda	Insecta
Vertebrate	Reptile	Chordata	Reptilia
Vertebrate	Reptile	Chordata	Reptilia
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta

Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Vertebrate	Fish	Chordata	Actinopterygii
Invertebrate	Flatworm	Platyhelminthes	Turbellaria
Vertebrate	Fish	Chordata	Actinopterygii
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Invertebrate	Thorny-Headed worms	Acanthocephala	Palaeacanthocephala
Invertebrate	Thorny-Headed worms	Acanthocephala	Palaeacanthocephala
Vertebrate	Mammal	Chordata	Mammalia
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Mammal	Chordata	Mammalia
Invertebrate	Arthropod	Arthropoda	Malacostraca

Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Vertebrate	Amphibian	Chordata	Amphibia
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Invertebrate	Arthropod	Arthropoda	Insecta
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Bird	Chordata	Aves
Vertebrate	Bird	Chordata	Aves
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Mammal	Chordata	Mammalia
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Amphibian	Chordata	Amphibia
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Cartilaginous fish	Chordata	Elasmobranchii
Vertebrate	Cartilaginous fish	Chordata	Chondrichthyes
Vertebrate	Amphibian	Chordata	Amphibia
Vertebrate	Amphibian	Chordata	Amphibia
Vertebrate	Amphibian	Chordata	Amphibia
Vertebrate	Amphibian	Chordata	Amphibia
Vertebrate	Mammal	Chordata	Mammalia
Vertebrate	Mammal	Chordata	Mammalia
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta

Invertebrate	Arthropod	Arthropoda	Insecta
Vertebrate	Reptile	Chordata	Reptilia
Vertebrate	Bird	Chordata	Aves
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Mammal	Chordata	Mammalia
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Vertebrate	Mammal	Chordata	Mammalia
Vertebrate	Fish	Chordata	Actinopterygii
Invertebrate	Arthropod	Arthropoda	Arachnida
Invertebrate	Arthropod	Arthropoda	Arachnida
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Reptile	Chordata	Reptilia
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Invertebrate	Arthropod	Arthropoda	Insecta
Vertebrate	Mammal	Chordata	Mammalia
Invertebrate	Mollusk	Mollusca	Bivalvia
Invertebrate	Mollusk	Mollusca	Bivalvia
Vertebrate	Bird	Chordata	Aves
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Mammal	Chordata	Mammalia
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Bird	Chordata	Aves
Vertebrate	Bird	Chordata	Aves
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Invertebrate	Arthropod	Arthropoda	Insecta
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Bird	Chordata	Aves
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Reptile	Chordata	Reptilia
Vertebrate	Reptile	Chordata	Reptilia
Vertebrate	Reptile	Chordata	Reptilia
Vertebrate	Reptile	Chordata	Reptilia

Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Arachnida
Vertebrate	Reptile	Chordata	Reptilia
Vertebrate	Fish	Chordata	Actinopterygii
Invertebrate	Mollusk	Mollusca	Bivalvia
Vertebrate	Mammal	Chordata	Mammalia
Vertebrate	Mammal	Chordata	Mammalia
Vertebrate	Fish	Chordata	Actinopterygii
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Vertebrate	Fish	Chordata	Actinopterygii
Invertebrate	Arthropod	Arthropoda	Insecta
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Mollusk	Mollusca	Venerioda
Invertebrate	Mollusk	Mollusca	Venerioda
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Invertebrate	Arthropod	Arthropoda	Insecta
Vertebrate	Reptile	Chordata	Reptilia
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Reptile	Chordata	Reptilia
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii

Vertebrate	Bird	Chordata	Aves
Vertebrate	Bird	Chordata	Aves
Vertebrate	Mammal	Chordata	Mammalia
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Reptile	Chordata	Reptilia
Vertebrate	Reptile	Chordata	Reptilia
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Mammal	Chordata	Mammalia
Vertebrate	Mammal	Chordata	Mammalia
Vertebrate	Reptile	Chordata	Reptilia
Vertebrate	Reptile	Chordata	Reptilia
Vertebrate	Reptile	Chordata	Reptilia
Invertebrate	Arthropod	Arthropoda	Insecta
Vertebrate	Mammal	Chordata	Mammalia
Vertebrate	Mammal	Chordata	Mammalia
Vertebrate	Mammal	Chordata	Mammalia
Vertebrate	Mammal	Chordata	Mammalia
Vertebrate	Mammal	Chordata	Mammalia
Vertebrate	Reptile	Chordata	Reptilia
Vertebrate	Reptile	Chordata	Reptilia
Vertebrate	Reptile	Chordata	Reptilia
Vertebrate	Reptile	Chordata	Reptilia
Invertebrate	Mollusk	Mollusca	Bivalvia
Invertebrate	Mollusk	Mollusca	Bivalvia
Invertebrate	Mollusk	Mollusca	Bivalvia
Invertebrate	Mollusk	Mollusca	Bivalvia
Vertebrate	Mammal	Chordata	Mammalia
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Vertebrate	Fish	Chordata	Actinopterygii
Invertebrate	Arthropod	Arthropoda	Arachnida
Vertebrate	Mammal	Chordata	Mammalia
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Vertebrate	Reptile	Chordata	Reptilia
Vertebrate	Amphibian	Chordata	Amphibia
Vertebrate	Amphibian	Chordata	Amphibia
Vertebrate	Amphibian	Chordata	Amphibia
Invertebrate	Mollusk	Mollusca	Bivalvia
Invertebrate	Arthropod	Arthropoda	Insecta
Vertebrate	Fish	Chordata	Actinopterygii
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Arachnida
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta

Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Invertebrate	Arthropod	Arthropoda	Insecta
Vertebrate	Fish	Chordata	Actinopterygii

Pozn. Sloupce 5S a 45S chromosome obsahují informaci o typu chromozomu, který nese rD

Order	Family	Genus	Specific epithet
Orthoptera	Acrididae	Abracris	dilecta
Orthoptera	Acrididae	Abracris	flavolineata
Perciformes	Pomacentridae	Abudefduf	bengalensis
Perciformes	Pomacentridae	Abudefduf	saxatilis
Perciformes	Pomacentridae	Abudefduf	sexfasciatus
Perciformes	Pomacentridae	Abudefduf	vaigiensis
Hemiptera	Coreidae	Acanonicus	hahni
Neuroptera	Myrmeleontidae	Acanthaclisis	occitanica
Squamata	Lacertidae	Acanthodactylus	lineomaculatus
Tetraodontiformes	Ostraciidae	Acanthostracion	polygonius
Tetraodontiformes	Ostraciidae	Acanthostracion	quadricornis
Perciformes	Cichlidae	Acaronia	nassa
Coleoptera	Carabidae	Acinopus	picipes
Acipenseriformes	Acipenseridae	Acipenser	baerii
Acipenseriformes	Acipenseridae	Acipenser	oxyrhynchus
Acipenseriformes	Acipenseridae	Acipenser	ruthenus
Acipenseriformes	Acipenseridae	Acipenser	stellatus
Acipenseriformes	Acipenseridae	Acipenser	sturio
Acipenseriformes	Acipenseridae	Acipenser	transmontanus
Squamata	Acrochordidae	Acrochordus	javanicus
Hymenoptera	Formicidae	Acromyrmex	aspersus
Hymenoptera	Formicidae	Acromyrmex	coronatus
Hymenoptera	Formicidae	Acromyrmex	disciger
Hymenoptera	Formicidae	Acromyrmex	niger
Hymenoptera	Formicidae	Acromyrmex	striatus
Hymenoptera	Formicidae	Acromyrmex	subterraneus
Orthoptera	Acrididae	Acrotylus	fischeri
Orthoptera	Acrididae	Acrotylus	patruelis
Hemiptera	Aphididae	Acyrtosiphon	pisum
Ostreoida	Pectinidae	Adamussium	colbecki
Anura	Leptodactylidae	Adenomera	andreae
Diptera	Culicidae	Aedes	aegypti
Perciformes	Cichlidae	Aequidens	tetramerus
Ostreoida	Pectinidae	Aequipecten	opercularis
Hemiptera	Aetalionidae	Aetalion	reticulatum
Hemiptera	Issidae	Agalmatium	bilobum
Hemiptera	Issidae	Agalmatium	flavescens
Siluriformes	Auchenipteridae	Ageneiosus	inermis
Squamata	Viperidae	Agkistrodon	contortrix
Squamata	Viperidae	Agkistrodon	intermedius
Squamata	Viperidae	Agkistrodon	piscivorus
Mugiliformes	Mugilidae	Agonostomus	monticola
Hemiptera	Tingidae	Agramma	fallax
Coleoptera	Chrysomelidae	Agroiconota	inedita
Cypriniformes	Cyprinidae	Acheilognathus	tabira
Pleuronectiformes	Achiridae	Achirus	achirus
Pleuronectiformes	Achiridae	Achirus	declivis
Pleuronectiformes	Achiridae	Achirus	lineatus
Orthoptera	Acrididae	Aiolopus	strepens

Orthoptera	Acrididae	Aiolopus	thalassinus
Rodentia	Cricetidae	Akodon	montensis
Cypriniformes	Cyprinidae	Alburnus	alburnus
Hemiptera	Cicadellidae	Alebra	albostriella
Hemiptera	Cicadellidae	Alebra	coryli
Hemiptera	Cicadellidae	Alebra	viridis
Hemiptera	Cicadellidae	Alebra	wahlbergi
Carnivora	Canidae	Alopex	lagopus
Hemiptera	Coreidae	Althos	obscurator
Anura	Discoglossidae	Alytes	obstetricans
Hemiptera	Membracidae	Amblyophallus	exaltatus
Orthoptera	Acrididae	Amblytropidia	sp.
Squamata	Teiidae	Ameiva	ameiva
Squamata	Teiidae	Ameiva	auberi
Amiiformes	Amiidae	Amia	calva
Anura	Ranidae	Amolops	mantzorum
Batrachoidiformes	Batrachoididae	Amphichthys	cryptocentrus
Orthoptera	Acrididae	Anacridium	aegyptum
Cypriniformes	Cyprinidae	Anaocypris	hispanica
Diptera	Tephritidae	Anastrepha	fraterculus
Siluriformes	Loricariidae	Ancistrus	abilhoai
Siluriformes	Loricariidae	Ancistrus	cirrhosus
Siluriformes	Loricariidae	Ancistrus	claro
Siluriformes	Loricariidae	Ancistrus	cuiabae
Siluriformes	Loricariidae	Ancistrus	dubius
Siluriformes	Loricariidae	Ancistrus	sp.
Siluriformes	Loricariidae	Ancistrus	taunayi
Scorpiones	Buthidae	Androctonus	australis
Scorpiones	Buthidae	Androctonus	bourdoni
Scorpiones	Buthidae	Androctonus	crassicauda
Scorpiones	Buthidae	Androctonus	maelfaiti
Anguilliformes	Anguillidae	Anguilla	anguilla
Hemiptera	Coreidae	Anisoscelis	foliaceus
Squamata	Iguanidae	Anolis	caroliensis
Squamata	Iguanidae	Anolis	homolechis
Squamata	Iguanidae	Anolis	porcatus
Chiroptera	Phyllostomidae	Anoura	geoffroyi
Lepidoptera	Saturniidae	Antheraea	pernyi
Hemiptera	Pentatomidae	Antiteuchus	tripterus
Chiroptera	Vespertilionidae	Antrozous	pallidus
Testudines	Trionychidae	Apalone	spinifera
Anura	Hylidae	Aparasphenodon	bokermanni
Characiformes	Parodontidae	Apareiodon	hasemani
Characiformes	Parodontidae	Apareiodon	sp.
Cyprinodontiformes	Cyprinodontidae	Aphanius	fasciatus
Hymenoptera	Aphelinidae	Aphelinus	coreae
Hymenoptera	Apidae	Apis	mellifera
Rodentia	Muridae	Apodemus	agrarius
Rodentia	Muridae	Apodemus	argenteus
Rodentia	Muridae	Apodemus	gurkha

Rodentia	Muridae	Apodemus	peninsulae
Rodentia	Muridae	Apodemus	semotus
Rodentia	Muridae	Apodemus	speciosus
Rodentia	Muridae	Apodemus	sylvaticus
Gymnotiformes	Apterodontidae	Apterodontus	albifrons
Gymnotiformes	Apterodontidae	Apterodontus	caudimaculosus
Osteoglossiformes	Arapaimidae	Arapaima	gigas
Lepidoptera	Arctiidae	Arctia	caja
Ostreoida	Pectinidae	Argopecten	irradians
Ostreoida	Pectinidae	Argopecten	purpuratus
Perciformes	Sciaenidae	Argyrosomus	amoyensis
Perciformes	Sciaenidae	Argyrosomus	regius
Perciformes	Artedidraconidae	Artedidraco	glareobarbatus
Perciformes	Artedidraconidae	Artedidraco	orianae
Perciformes	Artedidraconidae	Artedidraco	shackletoni
Perciformes	Artedidraconidae	Artedidraco	skottsbergi
Chiroptera	Phyllostomidae	Artibeus	cinereus
Chiroptera	Phyllostomidae	Artibeus	fimbriatus
Chiroptera	Phyllostomidae	Artibeus	fuliginosus
Chiroptera	Phyllostomidae	Artibeus	jamaicensis
Chiroptera	Phyllostomidae	Artibeus	lituratus
Chiroptera	Phyllostomidae	Artibeus	obscurus
Chiroptera	Phyllostomidae	Artibeus	planirostris
Hemiptera	Pentatomidae	Arvelius	albopunctatus
Anura	Ascaphidae	Ascaphus	truei
Orthoptera	Pamphagidae	Asiotmethis	turritus
Aspidogastrida	Aspidogastridae	Aspidogaster	limacoides
Siluriformes	Ariidae	Aspistor	luniscutis
Decapoda	Astacidae	Astacus	astacus
Decapoda	Astacidae	Astacus	leptodactylus
Perciformes	Cichlidae	Astatotilapia	burtoni
Perciformes	Cichlidae	Astatotilapia	latifasciata
Perciformes	Cichlidae	Astronotus	ocellatus
Falconiformes	Accipitridae	Asturina	nitida
Characiformes	Characidae	Astyanax	abramis
Characiformes	Characidae	Astyanax	altiparanae
Characiformes	Characidae	Astyanax	argyrimarginatus
Characiformes	Characidae	Astyanax	asuncionensis
Characiformes	Characidae	Astyanax	bimaculatus
Characiformes	Characidae	Astyanax	bockmanni
Characiformes	Characidae	Astyanax	correntinus
Characiformes	Characidae	Astyanax	eigenmanniorum
Characiformes	Characidae	Astyanax	elachylepis
Characiformes	Characidae	Astyanax	fasciatus
Characiformes	Characidae	Astyanax	giton
Characiformes	Characidae	Astyanax	goyacensis
Characiformes	Characidae	Astyanax	intermedius
Characiformes	Characidae	Astyanax	jacuhiensis
Characiformes	Characidae	Astyanax	janeiroensis
Characiformes	Characidae	Astyanax	lacustris

Characiformes	Characidae	Astyanax	marionae
Characiformes	Characidae	Astyanax	mexicanus
Characiformes	Characidae	Astyanax	parahybae
Characiformes	Characidae	Astyanax	paranae
Characiformes	Characidae	Astyanax	ribeirae
Characiformes	Characidae	Astyanax	scabripinnis
Characiformes	Characidae	Astyanax	schubarti
Characiformes	Characidae	Astyanax	xavante
Coleoptera	Scarabaeidae	Ateuchus	sp.
Hemiptera	Coreidae	Athaumastus	haematicus
Atheriniformes	Atherinopsidae	Atherinella	brasiliensis
Orthoptera	Pyrgomorphidae	Atractomorpha	lata
Lepisosteiformes	Lepisosteidae	Atractosteus	tropicus
Hymenoptera	Formicidae	Atta	bisphaerica
Hymenoptera	Formicidae	Atta	laevigata
Hymenoptera	Formicidae	Atta	robusta
Hymenoptera	Formicidae	Atta	sexdens
Aulopiformes	Aulopidae	Aulopus	japonicus
Perciformes	Cichlidae	Australoheros	angiru
Perciformes	Cichlidae	Australoheros	facetus
Decapoda	Astacidae	Austropotamobius	pallipes
Decapoda	Astacidae	Austropotamobius	torrentium
Opiliones	Pettalidae	Austropurcellia	arctica
Artiodactyla	Suidae	Babyrousa	babyrussa
Siluriformes	Sisoridae	Bagarius	suchus
Chiroptera	Emballonuridae	Balantiopteryx	plicata
Cypriniformes	Nemacheilidae	Barbatula	barbatula
Siluriformes	Loricariidae	Baryancistrus	xanthellus
Perciformes	Gobiidae	Bathygobius	soporator
Perciformes	Gobiidae	Bathygobius	sp.
Batrachoidiformes	Batrachoididae	Batrachoides	manglae
Hemiptera	Belostomatidae	Belostoma	candidulum
Hemiptera	Belostomatidae	Belostoma	cummingsi
Hemiptera	Belostomatidae	Belostoma	dentatum
Hemiptera	Belostomatidae	Belostoma	dilatatum
Hemiptera	Belostomatidae	Belostoma	discretum
Hemiptera	Belostomatidae	Belostoma	elongatum
Hemiptera	Belostomatidae	Belostoma	horvathi
Hemiptera	Belostomatidae	Belostoma	testaceopallidum
Perciformes	Cichlidae	Biotodoma	cupido
Artiodactyla	Bovidae	Bison	bison
Artiodactyla	Bovidae	Bison	bonasus
Squamata	Boidae	Boa	constrictor
Squamata	Boidae	Boa	constrictor
Squamata	Boidae	Boa	constrictor
Hemiptera	Membracidae	Bolbonota	melaena
Anura	Discoglossidae	Bombina	variegata
Lepidoptera	Bombycidae	Bombyx	mori
Artiodactyla	Bovidae	Bos	banteng
Artiodactyla	Bovidae	Bos	gaurus

Artiodactyla	Bovidae	Bos	taurus
Artiodactyla	Bovidae	Bos	taurus
Artiodactyla	Bovidae	Boselaphus	tragocamelus
Heterodonta	Tellinidae	Bosemprella	incarnata
Pleuronectiformes	Bothidae	Bothus	ocellatus
Characiformes	Ctenoluciidae	Boulengerella	cuvieri
Characiformes	Ctenoluciidae	Boulengerella	lateristriga
Characiformes	Ctenoluciidae	Boulengerella	lucius
Characiformes	Ctenoluciidae	Boulengerella	maculata
Perciformes	Bovichtidae	Bovichtus	diacanthus
Perciformes	Bovichtidae	Bovichtus	variegatus
Squamata	Chamaeleonidae	Bradypodion	thamnobates
Diptera	Sciaridae	Bradysia	hygida
Mytiloidea	Mytilidae	Brachidontes	exustus
Mytiloidea	Mytilidae	Brachidontes	puniceus
Mytiloidea	Mytilidae	Brachidontes	rodriguezii
Siluriformes	Pimelodidae	Brachyplatystoma	filamentosum
Orthoptera	Romaleidae	Brasilacris	gigas
Squamata	Chamaeleonidae	Brookesia	stumpffi
Characiformes	Characidae	Brycon	amazonicus
Characiformes	Characidae	Brycon	brevicauda
Characiformes	Characidae	Brycon	cephalus
Characiformes	Characidae	Brycon	insignis
Characiformes	Characidae	Brycon	lundii
Characiformes	Characidae	Brycon	microlepis
Characiformes	Characidae	Brycon	orbignyanus
Characiformes	Characidae	Bryconamericus	ecai
Characiformes	Characidae	Bryconamericus	iheringii
Characiformes	Characidae	Bryconamericus	iheringii
Characiformes	Characidae	Bryconamericus	sp.
Characiformes	Characidae	Bryconamericus	stramineus
Characiformes	Characidae	Bryconamericus	turiuba
Artiodactyla	Bovidae	Bubalus	bubalis
Artiodactyla	Bovidae	Bubalus	bubalis
Coleoptera	Scarabaeidae	Bubas	bison
Strigiformes	Strigidae	Bubo	blakistoni
Strigiformes	Strigidae	Bubo	bubo
Anura	Bufo	Bufo	bufo
Anura	Bufo	Bufo	xeros
Perciformes	Cichlidae	Bujurquina	peregrinabunda
Siluriformes	Aspredinidae	Bunocephalus	coracoideus
Falconiformes	Accipitridae	Buteogallus	meridionallis
Rhabditida	Rhabditidae	Caenorhabditis	elegans
Crocodylia	Crocodylidae	Caiman	crocodylus
Siluriformes	Callichthyidae	Callichthys	callichthys
Orthoptera	Acrididae	Calliptamus	barbarus
Orthoptera	Acrididae	Calliptamus	wattenwylanus
Squamata	Iguanidae	Callisaurus	draconoides
Squamata	Viperidae	Calloselasma	rhodostoma
Squamata	Chamaeleonidae	Calumma	brevicorne

Squamata	Chamaeleonidae	Calumma	crypticum
Squamata	Chamaeleonidae	Calumma	globifer
Squamata	Chamaeleonidae	Calumma	malthe
Squamata	Chamaeleonidae	Calumma	parsonii
Didelphimorphia	Caluromyidae	Caluromys	lanatus
Didelphimorphia	Caluromyidae	Caluromys	philander
Hymenoptera	Formicidae	Camponotus	cingulatus
Hymenoptera	Formicidae	Camponotus	renggeri
Hymenoptera	Formicidae	Camponotus	rufipes
Carnivora	Canidae	Canis	lupus
Tetraodontiformes	Tetraodontidae	Canthigaster	figueiredoi
Coleoptera	Scarabaeidae	Canthon	staigi
Perciformes	Cichlidae	Caquetaia	spectabilis
Perciformes	Carangidae	Carangoides	bartholomaei
Perciformes	Carangidae	Caranx	latus
Perciformes	Carangidae	Caranx	lugubris
Cypriniformes	Cyprinidae	Carassius	auratus
Cypriniformes	Cyprinidae	Carassius	auratus
Cypriniformes	Cyprinidae	Carassius	carassius
Testudines	Carettochelyidae	Carettochelys	insculpta
Chiroptera	Phyllostomidae	Carollia	castanea
Chiroptera	Phyllostomidae	Carollia	perspicillata
Chiroptera	Phyllostomidae	Carollia	subrufa
Coleoptera	Carabidae	Carterus	fulvipes
Caryophyllidea	Lytocestidae	Caryophyllaeides	fennica
Casuariiformes	Casuariidae	Casuarius	casuarius
Pleuronectiformes	Achiridae	Catathyridium	jenynsi
Falconiformes	Cathartidae	Cathartes	aura
Falconiformes	Cathartidae	Cathartes	burrovianus
Siluriformes	Ariidae	Cathorops	spixii
Cypriniformes	Cyprinidae	Catla	catla
Orthoptera	Acrididae	Cauratettix	borelli
Rodentia	Caviidae	Cavia	cambayo
Rodentia	Caviidae	Cavia	porcellus
Hemiptera	Coreidae	Cebrenis	sp.
Perciformes	Centropomidae	Centropomus	mexicanus
Perciformes	Centropomidae	Centropomus	undecimalis
Perciformes	Pomacanthidae	Centropyge	aurantonotus
Perciformes	Pomacanthidae	Centropyge	ferrugatus
Chiroptera	Phyllostomidae	Centurio	senex
Heterodonta	Cardiidae	Cerastoderma	edule
Caenogastropoda	Cerithiidae	Cerithium	vulgatum
Artiodactyla	Bovidae	Cervus	nippon
Siluriformes	Heptapteridae	Cetopsorhamdia	iheringi
Coleoptera	Carabidae	Cicindela	flexuosa
Coleoptera	Carabidae	Cicindela	littoralis
Perciformes	Cichlidae	Cichla	kelberi
Perciformes	Cichlidae	Cichla	monoculus
Perciformes	Cichlidae	Cichla	piquiti
Perciformes	Cichlidae	Cichlasoma	sanctifranciscense

Hemiptera	Cimicidae	Cimex	lectularius
Enterogona	Cionidae	Ciona	intestinalis
Cypriniformes	Cyprinidae	Cirrhinus	mrigala
Pleuronectiformes	Paralichthyidae	Citarichthys	spilopterus
Siluriformes	Clariidae	Clarias	batrachus
Siluriformes	Clariidae	Clarias	gariepinus
Siluriformes	Clariidae	Clarias	macrocephalus
Veneroida	Veneridae	Clausinella	fasciata
Squamata	Teiidae	Cnemidophorus	marmoratus
Squamata	Teiidae	Cnemidophorus	sp.
Cypriniformes	Cobitidae	Cobitis	sp.
Cypriniformes	Cobitidae	Cobitis	taenia
Cypriniformes	Cobitidae	Cobitis	vardarensis
Piciformes	Picidae	Colaptes	campestris
Piciformes	Picidae	Colaptes	melanochloros
Squamata	Gekkonidae	Coleonyx	variegatus
Lepidoptera	Pieridae	Colias	hyale
Tetraodontiformes	Tetraodontidae	Colomesus	asellus
Characiformes	Serrasalminidae	Colossoma	macropomum
Orthoptera	Acrididae	Compsacris	pulcher
Anguilliformes	Congridae	Conger	conger
Neogastropoda	Conidae	Conus	magus
Squamata	Iguanidae	Cophosaurus	texanus
Hemiptera	Tingidae	Copium	teucarii
Coleoptera	Scarabaeidae	Coprophanaeus	cyanescens
Coleoptera	Scarabaeidae	Coprophanaeus	ensifer
Squamata	Boidae	Corallus	hortulanus
Salmoniformes	Salmonidae	Coregonus	albula
Salmoniformes	Salmonidae	Coregonus	artedi
Salmoniformes	Salmonidae	Coregonus	fontanae
Salmoniformes	Salmonidae	Coregonus	lavaretus
Salmoniformes	Salmonidae	Coregonus	peled
Salmoniformes	Salmonidae	Coregonus	zenithicus
Perciformes	Labridae	Coris	julis
Chiroptera	Emballonuridae	Cormura	brevirostris
Siluriformes	Callichthyidae	Corydoras	britskii
Siluriformes	Callichthyidae	Corydoras	carlae
Siluriformes	Callichthyidae	Corydoras	ehrharti
Siluriformes	Callichthyidae	Corydoras	lacrimostigmata
Siluriformes	Callichthyidae	Corydoras	paleatus
Perciformes	Coryphaenidae	Coryphaena	equiselis
Perciformes	Coryphaenidae	Coryphaena	hippurus
Galliformes	Phasianidae	Coturinx	japonica
Ostreoida	Ostreidae	Crassostrea	angulata
Ostreoida	Ostreidae	Crassostrea	ariakensis
Ostreoida	Ostreidae	Crassostrea	gigas
Ostreoida	Ostreidae	Crassostrea	plicatula
Ostreoida	Ostreidae	Crassostrea	rhizophorae
Ostreoida	Ostreidae	Crassostrea	virginica
Perciformes	Cichlidae	Crenicichla	lepidota

Rodentia	Cricetidae	Cricetulus	griseus
Crocodylia	Crocodylidae	Crocodylus	johnstoni
Crocodylia	Crocodylidae	Crocodylus	porosus
Squamata	Viperidae	Crotalus	atrox
Squamata	Viperidae	Crotalus	viridis
Squamata	Iguanidae	Crotaphytus	collaris
Perciformes	Channichthyidae	Cryodraco	antarcticus
Perciformes	Channichthyidae	Cryodraco	atkinsoni
Coleoptera	Carabidae	Cryptophonus	tenebrosus
Perciformes	Gobiidae	Ctenogobius	boleosoma
Perciformes	Gobiidae	Ctenogobius	smaragdus
Araneae	Ctenidae	Ctenus	medius
Tetraodontiformes	Diodontidae	Cyclichthys	spinosus
Orthoptera	Mogoplistidae	Cycloptiloides	americanus
Lepidoptera	Tortricidae	Cydia	pomonella
Perciformes	Bathydraconidae	Cygnodraco	mawsoni
Pleuronectiformes	Cynoglossidae	Cynoglossus	semilaevis
Characiformes	Curimatidae	Cyphocharax	modesta
Characiformes	Curimatidae	Cyphocharax	modestus
Characiformes	Curimatidae	Cyphocharax	saladensis
Characiformes	Curimatidae	Cyphocharax	spilotus
Characiformes	Curimatidae	Cyphocharax	voga
Opiliones	Sironidae	Cyphophthalmus	duricorius
Cypriniformes	Cyprinidae	Cyprinus	carpio
Coleoptera	Chrysomelidae	Cyrtota	cyanea
Anguilliformes	Ophichthidae	Dalophis	imberbis
Cypriniformes	Cyprinidae	Danio	rerio
Primates	Daubentoniidae	Daubentonia	madagascariensis
Coleoptera	Chrysomelidae	Deloyala	cruciata
Coleoptera	Scarabaeidae	Deltochilum	calcaratum
Coleoptera	Scarabaeidae	Deltochilum	elevatum
Coleoptera	Scarabaeidae	Deltochilum	morbillosum
Coleoptera	Scarabaeidae	Deltochilum	verruciferum
Tricladida	Dendrocoelidae	Dendrocoelum	lacteum
Anura	Hylidae	Dendropsophus	elegans
Anura	Hylidae	Dendropsophus	microps
Anura	Hylidae	Dendropsophus	minutus
Anura	Hylidae	Dendropsophus	weneri
Hemiptera	Cercopidae	Deois	flavopicta
Hemiptera	Cercopidae	Deois	mourei
Hemiptera	Cercopidae	Deois	schach
Chiroptera	Phyllostomidae	Dermanura	azteca
Chiroptera	Phyllostomidae	Dermanura	phaeotis
Chiroptera	Phyllostomidae	Dermanura	tolteca
Orthoptera	Ommexechidae	Descampsacris	serrulatum
Chiroptera	Phyllostomidae	Desmodus	rotundus
Characiformes	Characidae	Deuterodon	stigmaturus
Coleoptera	Scarabaeidae	Diabroctis	mimas
Chiroptera	Phyllostomidae	Diaemus	youngi
Perciformes	Gerreidae	Diapterus	auratus

Perciformes	Gerreidae	Diapterus	rhombeus
Perciformes	Moronidae	Dicentrarchus	labrax
Perciformes	Moronidae	Dicentrarchus	punctatus
Hemiptera	Tingidae	Dictyla	echii
Hemiptera	Tingidae	Dictyla	humuli
Hemiptera	Tingidae	Dictyla	rotundata
Didelphimorphia	Didelphidae	Didelphis	marsupialis
Coleoptera	Scarabaeidae	Digitonthophagus	gazella
Coleoptera	Carabidae	Dicheirotichus	obsoletus
Coleoptera	Scarabaeidae	Dichotomius	affinis
Coleoptera	Scarabaeidae	Dichotomius	bos
Coleoptera	Scarabaeidae	Dichotomius	crnicollis
Coleoptera	Scarabaeidae	Dichotomius	depresicollis
Coleoptera	Scarabaeidae	Dichotomius	geminatus
Coleoptera	Scarabaeidae	Dichotomius	laevicollis
Coleoptera	Scarabaeidae	Dichotomius	mormon
Coleoptera	Scarabaeidae	Dichotomius	mundus
Coleoptera	Scarabaeidae	Dichotomius	nisus
Coleoptera	Scarabaeidae	Dichotomius	semiaeneus
Coleoptera	Scarabaeidae	Dichotomius	semisquamosus
Coleoptera	Scarabaeidae	Dichotomius	sericeus
Coleoptera	Scarabaeidae	Dichotomius	sp.
Orthoptera	Acrididae	Dichroplus	elongatus
Orthoptera	Acrididae	Dichroplus	exilis
Orthoptera	Acrididae	Dichroplus	fuscus
Orthoptera	Acrididae	Dichroplus	intermedius
Orthoptera	Acrididae	Dichroplus	pratensis
Hemiptera	Triatominae	Dipetalogaster	maxima
Chiroptera	Phyllostomidae	Diphylla	ecaudata
Perciformes	Sparidae	Diplodus	sargus
Hymenoptera	Cynipidae	Diplolepis	rosae
Squamata	Iguanidae	Dipsosaurus	dorsalis
Anura	Discoglossidae	Discoglossus	pictus
Perciformes	Nototheniidae	Dissostichus	eleginoides
Perciformes	Nototheniidae	Dissostichus	mawsoni
Neuroptera	Myrmeleontidae	Distoleon	tetragrammicus
Coleoptera	Carabidae	Ditomus	tricuspidatus
Hemiptera	Aphididae	Diuraphis	noxia
Coleoptera	Carabidae	Dixus	capito
Coleoptera	Carabidae	Dixus	clypeatus
Coleoptera	Carabidae	Dixus	sphaerocephalus
Orthoptera	Acrididae	Dociostaurus	jagoi
Orthoptera	Acrididae	Dociostaurus	maroccanus
Veneroida	Donacidae	Donax	trunculus
Veneroida	Donacidae	Donax	vittatus
Cardiida	Veneridae	Dosinia	exoleta
Veneroida	Veneridae	Dosinia	lupinus
Casuariiformes	Casuariidae	Dromaius	novaehollandiae
Diptera	Drosophilidae	Drosophila	hydei
Diptera	Drosophilidae	Drosophila	melanogaster

Hemiptera	Pyrrhocoridae	Dysdercus	fulvoniger
Hemiptera	Pyrrhocoridae	Dysdercus	imitator
Hemiptera	Pyrrhocoridae	Dysdercus	ruficollis
Perciformes	Gobiidae	Economidichthys	pygmaeus
Orthoptera	Phaneropteridae	Ectadia	fulva
Hemiptera	Pentatomidae	Edessa	impura
Hemiptera	Pentatomidae	Edessa	meditabunda
Hemiptera	Pentatomidae	Edessa	rufomarginata
Coleoptera	Carabidae	Egadroma	marginatum
Coleoptera	Carabidae	Egadroma	piceus
Anguilliformes	Muraenidae	Echidna	nebulosa
Gymnotiformes	Sternopygidae	Eigenmannia	sp."A"
Gymnotiformes	Sternopygidae	Eigenmannia	sp."B"
Gymnotiformes	Sternopygidae	Eigenmannia	trilineata
Gymnotiformes	Sternopygidae	Eigenmannia	virescens
Haplotaxida	Lumbricidae	Eisenia	foetida
Passeriformes	Tyrannidae	Elaenia	spectabilis
Squamata	Colubridae	Elaphe	guttata
Squamata	Colubridae	Elaphe	obsoleta
Perciformes	Eleginopidae	Eleginops	maclovinus
Testudines	Chelidae	Emydura	macquarii
Orthoptera	Gryllidae	Eneoptera	surinamensis
Anura	Leiuperidae	Engystomops	freibergeri
Anura	Leiuperidae	Engystomops	petersi
Hemiptera	Membracidae	Enchenopa	sp.
Julida	-	Enologus	oxypygum
Araneae	Ctenidae	Enoploctenus	cyclothorax
Solenida	Pharidae	Ensis	arcuatus
Solenida	Pharidae	Ensis	directus
Solenida	Pharidae	Ensis	minor
Solenida	Pharidae	Ensis	siliqua
Orthoptera	Tettigoniidae	Enyaliopsis	ephippiatus
Coleoptera	Carabidae	Eocarterus	amicorum
Lepidoptera	Pyalidae	Ephestia	kuehniella
Squamata	Boidae	Epicrates	assisi
Squamata	Boidae	Epicrates	cenchria
Squamata	Boidae	Epicrates	crassus
Perciformes	Serranidae	Epinephelus	awoara
Perciformes	Serranidae	Epinephelus	coioides
Perciformes	Serranidae	Epinephelus	lanceolatus
Perciformes	Serranidae	Epinephelus	marginatus
Chiroptera	Pteropididae	Epomophorus	wahlbergi
Chiroptera	Vespertilionidae	Eptesicus	fuscus
Perissodactyla	Equidae	Equus	caballus
Hemiptera	Triatominae	Eratyrus	cuspidatus
Orthoptera	Pamphagidae	Eremopeza	festiva
Insectivora	Erinaceidae	Erinaceus	algerus
Polypteriformes	Polypteridae	Erpetoichthys	calabaricus
Characiformes	Erythrinidae	Erythrinus	erythrinus
Cetacea	Eschrichtidae	Eschrichtius	robustus

Esociformes	Esocidae	Esox	cisalpinus
Esociformes	Esocidae	Esox	lucius
Perciformes	Cichlidae	Etroplus	maculatus
Pleuronectiformes	Paralichthyidae	Etropus	crossotus
Perciformes	Gerreidae	Eucinostomus	argenteus
Perciformes	Gerreidae	Eucinostomus	gula
Perciformes	Gerreidae	Eucinostomus	melanopterus
Tinamiformes	Tinamidae	Eudromia	elegans
Orthoptera	Tettigoniidae	Eugaster	nigripes
Orthoptera	Tettigoniidae	Eugaster	powysi
Orthoptera	Tettigoniidae	Eugasteroides	loricatus
Perciformes	Gerreidae	Eugerres	brasilianus
Orthoptera	Acrididae	Euchorthippus	albolineatus
Orthoptera	Acrididae	Eumastusia	koebelei
Orthoptera	Pamphagidae	Eumigus	monticola
Chiroptera	Vespertilionidae	Eumops	glaucus
Squamata	Boidae	Eunectes	murinus
Squamata	Boidae	Eunectes	notaeus
Orthoptera	Tettigoniidae	Eupholidoptera	astyla
Orthoptera	Tettigoniidae	Eupholidoptera	epirotica
Orthoptera	Tettigoniidae	Eupholidoptera	karabagi
Orthoptera	Tettigoniidae	Eupholidoptera	krueperi
Orthoptera	Tettigoniidae	Eupholidoptera	megastyla
Orthoptera	Tettigoniidae	Eupholidoptera	mersinensis
Orthoptera	Tettigoniidae	Eupholidoptera	schmidti
Orthoptera	Tettigoniidae	Eupholidoptera	smyrnensis
Orthoptera	Tettigoniidae	Eupholidoptera	tahtalica
Hemiptera	Largidae	Euryophthalmus	rufipennis
Coleoptera	Scarabaeidae	Eurysternus	caribaeus
Hymenoptera	Eurytomidae	Eurytoma	compressa
Hymenoptera	Eurytomidae	Eurytoma	robusta
Hymenoptera	Eurytomidae	Eurytoma	serratulae
Hemiptera	Pentatomidae	Euschistus	cornutus
Hemiptera	Pentatomidae	Euschistus	heros
Orthoptera	Acrididae	Eyprepocnemis	plorans
Orthoptera	Acrididae	Eyprepocnemis	unicolor
Echinostomida	Fasciolidae	Fasciola	hepatica
Caenogastropoda	Fasciolariidae	Fasciolaria	lignaria
Echinostomida	Fasciolidae	Fascioides	magna
Hemiptera	Cicadellidae	Ferrariana	trivittata
Squamata	Chamaeleonidae	Furcifer	oustaleti
Squamata	Chamaeleonidae	Furcifer	pardalis
Gadiformes	Gadidae	Gadus	morhua
Hemiptera	Tingidae	Galeatus	sinuatus
Galliformes	Phasianidae	Gallus	gallus
Squamata	Iguanidae	Gambelia	wislizenii
Hymenoptera	Figitidae	Ganaspis	xanthopoda
Squamata	Gekkonidae	Gekko	hokouensis
Siluriformes	Ariidae	Genidens	genidens
Perciformes	Cichlidae	Geophagus	brasiliensis

Perciformes	Cichlidae	Geophagus	proximus
Perciformes	Cichlidae	Gephyrochromis	moorii
Mytiloidea	Mytilidae	Gibbomodiola	adriatica
Didelphimorphia	Didelphidae	Glironia	venusta
Diptera	Glossinidae	Glossina	austeni
Diptera	Glossinidae	Glossina	brevipalpis
Diptera	Glossinidae	Glossina	fuscipes
Diptera	Glossinidae	Glossina	morsitans
Diptera	Glossinidae	Glossina	pallidipes
Diptera	Glossinidae	Glossina	palpalis
Diptera	Glossinidae	Glossina	tachinoides
Chiroptera	Phyllostomidae	Glossophaga	soricina
Orthoptera	Pamphagidae	Glyphothmetis	adaliae
Orthoptera	Pamphagidae	Glyphothmetis	dimorphus
Orthoptera	Pamphagidae	Glyphothmetis	efe
Orthoptera	Pamphagidae	Glyphothmetis	holtzi
Testudines	Emydidae	Glyptemys	insculpta
Diptera	Chironomidae	Glyptotendipes	barbipes
Perciformes	Nototheniidae	Gobionotothen	acuta
Perciformes	Nototheniidae	Gobionotothen	gibberifrons
Perciformes	Nototheniidae	Gobionotothen	marionensis
Perciformes	Gobiidae	Gobius	niger
Primates	Hominidae	Gorilla	gorilla
Didelphimorphia	Didelphidae	Gracilinanus	emiliae
Orthoptera	Gryllidae	Gryllus	assimilis
Pleuronectiformes	Achiridae	Gymnachirus	nudus
Cypriniformes	Cyprinidae	Gymnocypris	chui
Cypriniformes	Cyprinidae	Gymnocypris	scleracanthus
Perciformes	Bathyaconidae	Gymnodraco	acuticeps
Perciformes	Cichlidae	Gymnogeophagus	setequedas
Anguilliformes	Muraenidae	Gymnomuraena	zebra
Coleoptera	Scarabaeidae	Gymnopleurus	sturmi
Anguilliformes	Muraenidae	Gymnothorax	fimbriatus
Anguilliformes	Muraenidae	Gymnothorax	flavimarginatus
Anguilliformes	Muraenidae	Gymnothorax	javanicus
Anguilliformes	Muraenidae	Gymnothorax	tile
Anguilliformes	Muraenidae	Gymnothorax	undulatus
Gymnotiformes	Gymnotidae	Gymnotus	bahianus
Gymnotiformes	Gymnotidae	Gymnotus	carapo
Gymnotiformes	Gymnotidae	Gymnotus	coatesi
Gymnotiformes	Gymnotidae	Gymnotus	inaequilabiatus
Gymnotiformes	Gymnotidae	Gymnotus	pantanal
Gymnotiformes	Gymnotidae	Gymnotus	pantherinus
Gymnotiformes	Gymnotidae	Gymnotus	paraguensis
Gymnotiformes	Gymnotidae	Gymnotus	sylvius
Arhynchobdellida	Haemopidae	Haemopis	sanguisuga
Perciformes	Haemulidae	Haemulon	aurolineatum
Perciformes	Haemulidae	Haemulon	bonariense
Perciformes	Haemulidae	Haemulon	plumierii
Perciformes	Labridae	Halichoeres	brasiliensis

Perciformes	Labridae	Halichoeres	penrosei
Perciformes	Labridae	Halichoeres	poeyi
Perciformes	Labridae	Halichoeres	radiatus
Vetigastropoda	Haliotidae	Haliotis	discushannai
Batrachoidiformes	Batrachoididae	Halobatrachus	didactylus
Perciformes	Cichlidae	Haplochromis	obliquidens
Hemiptera	Rhopalidae	Harmosthes	prolixus
Coleoptera	Carabidae	Harpalus	affinis
Coleoptera	Carabidae	Harpalus	anxius
Coleoptera	Carabidae	Harpalus	contemptus
Coleoptera	Carabidae	Harpalus	decipiens
Coleoptera	Carabidae	Harpalus	distinguendus
Coleoptera	Carabidae	Harpalus	fuscipalpis
Coleoptera	Carabidae	Harpalus	honestus
Coleoptera	Carabidae	Harpalus	microthorax
Coleoptera	Carabidae	Harpalus	nevadensis
Coleoptera	Carabidae	Harpalus	rubripes
Coleoptera	Carabidae	Harpalus	rufipalpis
Coleoptera	Carabidae	Harpalus	serripes
Coleoptera	Carabidae	Harpalus	sp.
Coleoptera	Carabidae	Harpalus	wagneri
Siluriformes	Loricariidae	Harttia	carvalhoi
Siluriformes	Loricariidae	Harttia	gracilis
Siluriformes	Loricariidae	Harttia	kronei
Siluriformes	Loricariidae	Harttia	longipinna
Siluriformes	Loricariidae	Harttia	loricariformis
Siluriformes	Loricariidae	Harttia	punctata
Siluriformes	Loricariidae	Harttia	torrenticola
Characiformes	Characidae	Hasemania	nana
Siluriformes	Doradidae	Hassar	wilderi
Siluriformes	Bagridae	Hemibagrus	filamentus
Siluriformes	Bagridae	Hemibagrus	nemurus
Siluriformes	Bagridae	Hemibagrus	wyckii
Siluriformes	Bagridae	Hemibagrus	wyckioides
Perciformes	Cichlidae	Hemichromis	bimaculatus
Hemiptera	Issidae	Hemisphaerius	sp.
Characiformes	Bryconidae	Henochilus	wheatlandii
Coleoptera	Coccinellidae	Henosepilachna	argus
Characiformes	Hepsetidae	Hepsetus	odoe
Perciformes	Cichlidae	Heros	efasciatus
Orthoptera	Acrididae	Heteracris	adspersa
Orthoptera	Tettigoniidae	Hetrodes	pupus
Ostreoida	Pectinidae	Hinnites	distortus
Pleuronectiformes	Pleuronectidae	Hippoglossus	hippoglossus
Perciformes	Artedidraconidae	Histiodraco	velifer
Squamata	Iguanidae	Holbrookia	lacerata
Squamata	Phrynosomatidae	Holbrookia	maculata
Squamata	Iguanidae	Holbrookia	propinqua
Hemiptera	Coreidae	Holhymenia	histrion
Primates	Hominidae	Homo	sapiens

Perciformes	Cichlidae	Hoplarchus	psittacus
Characiformes	Erythrinidae	Hoplerythrinus	unitaeniatus
Characiformes	Hepsetidae	Hoplias	aimara
Characiformes	Hepsetidae	Hoplias	lacerdae
Characiformes	Erythrinidae	Hoplias	malabaricus
Siluriformes	Callichthyidae	Hoplosternum	littorale
Hemiptera	Membracidae	Horiola	picta
Salmoniformes	Salmonidae	Hucho	hucho
Salmoniformes	Salmonidae	Hucho	perryi
Acipenseriformes	Acipenseridae	Huso	huso
Primates	Hylobatidae	Hylobates	lar
Caudata	Hynobiidae	Hynobius	quelpaertensis
Caudata	Hynobiidae	Hynobius	tsuensis
Siluriformes	Loricariidae	Hypancistrus	debilittera
Siluriformes	Loricariidae	Hypancistrus	zebra
Characiformes	Characidae	Hyphessobrycon	anisitsi
Characiformes	Characidae	Hyphessobrycon	luetkenii
Characiformes	Characidae	Hyphessobrycon	vinaceus
Pleuronectiformes	Achiridae	Hypoclinemus	mentalis
Siluriformes	Loricariidae	Hypostomus	affinis
Siluriformes	Loricariidae	Hypostomus	albopunctatus
Siluriformes	Loricariidae	Hypostomus	ancistroides
Siluriformes	Loricariidae	Hypostomus	cochliodon
Siluriformes	Loricariidae	Hypostomus	commersoni
Siluriformes	Loricariidae	Hypostomus	faveolus
Siluriformes	Loricariidae	Hypostomus	hermanni
Siluriformes	Loricariidae	Hypostomus	hermanni
Siluriformes	Loricariidae	Hypostomus	isbrueckeri
Siluriformes	Loricariidae	Hypostomus	luteomaculatus
Siluriformes	Loricariidae	Hypostomus	luteus
Siluriformes	Loricariidae	Hypostomus	paulinus
Siluriformes	Loricariidae	Hypostomus	paulinus
Siluriformes	Loricariidae	Hypostomus	plecostomus
Siluriformes	Loricariidae	Hypostomus	plecostomus
Siluriformes	Loricariidae	Hypostomus	regani
Siluriformes	Loricariidae	Hypostomus	strigaticeps
Siluriformes	Loricariidae	Hypostomus	topavae
Perciformes	Cichlidae	Hypselecara	coryphaenoides
Perciformes	Cichlidae	Hypselecara	temporalis
Hemiptera	Coreidae	Hypselonotus	fulvus
Hemiptera	Coreidae	Hypselonotus	interruptus
Anura	Hylidae	Hypsiboas	pardalis
Anura	Hylidae	Hypsiboas	semilineatus
Perciformes	Cichlidae	Chaetobranchus	flavescens
Perciformes	Ephippidae	Chaetodipterus	faber
Perciformes	Chaetodontidae	Chaetodon	ocellatus
Perciformes	Chaetodontidae	Chaetodon	striatus
Squamata	Opluridae	Chalarodon	madagascariensis
Squamata	Chamaeleonidae	Chamaeleo	calyptratus
Veneroida	Veneridae	Chamelea	gallina

Veneroida	Veneridae	Chamelea	striatula
Perciformes	Channichthyidae	Champscephalus	gunnari
Perciformes	Channidae	Channa	gachua
Perciformes	Channidae	Channa	lucius
Perciformes	Channidae	Channa	micropeltes
Perciformes	Channidae	Channa	punctatus
Perciformes	Channidae	Channa	striata
Perciformes	Channichthyidae	Channichthys	rhinoceratus
Characiformes	Crenuchidae	Characidium	alipioi
Characiformes	Crenuchidae	Characidium	gomesi
Characiformes	Crenuchidae	Characidium	lanei
Characiformes	Crenuchidae	Characidium	orientale
Characiformes	Crenuchidae	Characidium	pterostictum
Characiformes	Crenuchidae	Characidium	rachovii
Characiformes	Crenuchidae	Characidium	sp. 1
Characiformes	Crenuchidae	Characidium	sp. 2
Characiformes	Crenuchidae	Characidium	sp. 3
Characiformes	Crenuchidae	Characidium	sp. 4
Characiformes	Crenuchidae	Characidium	sp. 5
Characiformes	Crenuchidae	Characidium	stigmatosum
Characiformes	Crenuchidae	Characidium	tenuis
Characiformes	Crenuchidae	Characidium	timbuense
Characiformes	Crenuchidae	Characidium	vestigipinne
Characiformes	Crenuchidae	Characidium	vidali
Characiformes	Crenuchidae	Characidium	vidali
Characiformes	Crenuchidae	Characidium	xavante
Characiformes	Crenuchidae	Characidium	zebra
Coleoptera	Chrysomelidae	Charidotella	immaculata
Coleoptera	Chrysomelidae	Charidotella	sexpunctata
Hemiptera	Coreidae	Chariesterus	armatus
Testudines	Chelidae	Chelodina	oblonga
Testudines	Chelydridae	Chelydra	serpentina
Coleoptera	Chrysomelidae	Chelymorpha	cribraria
Coleoptera	Chrysomelidae	Chelymorpha	inflata
Rodentia	Chinchillidae	Chinchilla	lanigera
Perciformes	Channichthyidae	Chionodraco	hamatus
Chiroptera	Phyllostomidae	Chiroderma	salvini
Chiroptera	Phyllostomidae	Chiroderma	villosum
Diptera	Chironomidae	Chironomus	agilis
Diptera	Chironomidae	Chironomus	annularius
Diptera	Chironomidae	Chironomus	balatonicus
Diptera	Chironomidae	Chironomus	borokensis
Diptera	Chironomidae	Chironomus	cingulatus
Diptera	Chironomidae	Chironomus	dilutus
Diptera	Chironomidae	Chironomus	dorsalis
Diptera	Chironomidae	Chironomus	entis
Diptera	Chironomidae	Chironomus	lacunarius
Diptera	Chironomidae	Chironomus	luridus
Diptera	Chironomidae	Chironomus	melanescens
Diptera	Chironomidae	Chironomus	muratensis

Diptera	Chironomidae	Chironomus	nuditarsis
Diptera	Chironomidae	Chironomus	nudiventris
Diptera	Chironomidae	Chironomus	pallidivittatus
Diptera	Chironomidae	Chironomus	plumosus
Diptera	Chironomidae	Chironomus	pseudothummi
Diptera	Chironomidae	Chironomus	riparius
Diptera	Chironomidae	Chironomus	setivalva
Diptera	Chironomidae	Chironomus	sororius
Diptera	Chironomidae	Chironomus	tentans
Diptera	Chironomidae	Chironomus	thummi
Ostreoida	Pectinidae	Chlamys	farreri
Chiroptera	Phyllostomidae	Choeroniscus	godmani
Chiroptera	Phyllostomidae	Choeronycteris	mexicana
Orthoptera	Acrididae	Chorthippus	apicalis
Orthoptera	Acrididae	Chorthippus	bigguttulus
Orthoptera	Acrididae	Chorthippus	binotatus
Orthoptera	Acrididae	Chorthippus	brunneus
Orthoptera	Acrididae	Chorthippus	dorsatus
Orthoptera	Acrididae	Chorthippus	eisentrauti
Orthoptera	Acrididae	Chorthippus	jacobsi
Orthoptera	Acrididae	Chorthippus	jucundus
Orthoptera	Acrididae	Chorthippus	nevadensis
Orthoptera	Acrididae	Chorthippus	parallelus
Orthoptera	Acrididae	Chorthippus	vagans
Orthoptera	Romaleidae	Chromacris	nuptialis
Orthoptera	Romaleidae	Chromacris	speciosa
Perciformes	Pomacentridae	Chromis	flavicauda
Perciformes	Pomacentridae	Chromis	insolata
Testudines	Emydidae	Chrysemys	picta
Cypriniformes	Cyprinidae	Iberochondrostoma	lusitanicum
Squamata	Lacertidae	Iberolacerta	monticola
Siluriformes	Ictaluridae	Ictalurus	punctatus
Squamata	Iguanidae	Iguana	iguana
Siluriformes	Pimelodidae	Iheringichthys	labrosus
Hymenoptera	Ichneumonidae	Ichneumon	amphibolus
Characiformes	Prochilodontidae	Ichthyoelephas	humeralis
Siluriformes	Heptapteridae	Imparfinis	minutus
Siluriformes	Heptapteridae	Imparfinis	mirini
Siluriformes	Heptapteridae	Imparfinis	schubarti
Lepidoptera	Nymphalidae	Inachis	io
Coleoptera	Scarabaeidae	Isocopris	inhata
Orthoptera	Tettigoniidae	Isophya	altaica
Orthoptera	Tettigoniidae	Isophya	amplipennis
Orthoptera	Tettigoniidae	Isophya	andreevae
Orthoptera	Tettigoniidae	Isophya	armena
Orthoptera	Tettigoniidae	Isophya	autumnalis
Orthoptera	Tettigoniidae	Isophya	brunneri
Orthoptera	Tettigoniidae	Isophya	bureschi
Orthoptera	Tettigoniidae	Isophya	camptoxypha
Orthoptera	Tettigoniidae	Isophya	gulae

Orthoptera	Tettigoniidae	Isophya	hospodar
Orthoptera	Tettigoniidae	Isophya	kraussii
Orthoptera	Tettigoniidae	Isophya	longicaudata
Orthoptera	Tettigoniidae	Isophya	longicaudata
Orthoptera	Tettigoniidae	Isophya	major
Orthoptera	Tettigoniidae	Isophya	miksici
Orthoptera	Tettigoniidae	Isophya	modestior
Orthoptera	Tettigoniidae	Isophya	nervosa
Orthoptera	Tettigoniidae	Isophya	obtusa
Orthoptera	Tettigoniidae	Isophya	pavellii
Orthoptera	Tettigoniidae	Isophya	pienensis
Orthoptera	Tettigoniidae	Isophya	plevnensis
Orthoptera	Tettigoniidae	Isophya	rectipennis
Orthoptera	Tettigoniidae	Isophya	rhodopensis
Orthoptera	Tettigoniidae	Isophya	rhodopensis
Orthoptera	Tettigoniidae	Isophya	rhodopensis
Orthoptera	Tettigoniidae	Isophya	rizeensis
Orthoptera	Tettigoniidae	Isophya	schneideri
Orthoptera	Tettigoniidae	Isophya	speciosa
Orthoptera	Tettigoniidae	Isophya	stenocauda
Orthoptera	Tettigoniidae	Isophya	stenocauda
Orthoptera	Tettigoniidae	Isophya	straubei
Orthoptera	Tettigoniidae	Isophya	sureyai
Orthoptera	Tettigoniidae	Isophya	taurica
Orthoptera	Tettigoniidae	Isophya	thracica
Orthoptera	Tettigoniidae	Isophya	tosevski
Orthoptera	Tettigoniidae	Isophya	yaraligozi
Orthoptera	Tettigoniidae	Isophya	zernovi
Hemiptera	Issidae	Issus	lauri
Anura	Hylidae	Itapotihyla	langsdorffii
Squamata	Teiidae	Kentropyx	calcarata
Squamata	Teiidae	Kentropyx	pelviceps
Hemiptera	Issidae	Kervillea	basinger
Squamata	Chamaeleonidae	Kinyongia	boehmei
Squamata	Chamaeleonidae	Kinyongia	xenorhina
Siluriformes	Loricariidae	Kronichthys	lacerta
Cypriniformes	Cyprinidae	Labeo	rohita
Perciformes	Cichlidae	Labeotropheus	trewavase
Characiformes	Anostomidae	Laemolyta	taemiata
Perciformes	Cichlidae	Laetacara	dorsigera
Coleoptera	Tenebrionidae	Lagria	villosa
Artiodactyla	Camellidae	Lama	guanicoe
Petromyzontiformes	Petromyzontidae	Lampetra	zanandreai
Rodentia	Diatomyidae	Laonastes	aenigmamus
Hemiptera	Largidae	Largus	fasciatus
Hemiptera	Largidae	Largus	rufipennis
Perciformes	Sciaenidae	Larimichthys	crocea
Perciformes	Sciaenidae	Larimichthys	polyactis
Hemiptera	Tingidae	Lasiacantha	capucina
Chiroptera	Vespertilionidae	Lasionycteris	noctivagans

Chiroptera	Vespertilionidae	Lasiurus	cinereus
Cyprinodontiformes	Cyprinodontidae	Lebias	fasciata
Coleoptera	Carabidae	Lecanomerus	sp.
Cypriniformes	Nemacheilidae	Lefua	costata
Squamata	Tropiduridae	Leiocephalus	carinatus
Squamata	Tropiduridae	Leiocephalus	raviceps
Squamata	Agamidae	Leiolepis	belliana
Squamata	Agamidae	Leiolepis	boehmei
Squamata	Agamidae	Leiolepis	reevesii
Squamata	Gekkonidae	Lepidodactylus	lugubris
Perciformes	Nototheniidae	Lepidonotothen	larseni
Perciformes	Nototheniidae	Lepidonotothen	mizops
Perciformes	Nototheniidae	Lepidonotothen	nudifrons
Perciformes	Nototheniidae	Lepidonotothen	squamifrons
Lepisosteiformes	Lepisosteidae	Lepisosteus	oculatus
Lepisosteiformes	Lepisosteidae	Lepisosteus	osseus
Characiformes	Anostomidae	Leporellus	vittatus
Characiformes	Anostomidae	Leporinus	agassizi
Characiformes	Anostomidae	Leporinus	elongatus
Characiformes	Anostomidae	Leporinus	fasciatus
Characiformes	Anostomidae	Leporinus	friderici
Characiformes	Anostomidae	Leporinus	obtusidens
Characiformes	Anostomidae	Leporinus	reinhardti
Characiformes	Anostomidae	Leporinus	trifasciatus
Siluriformes	Callichthyidae	Lepthoplosternum	pectorale
Lepidoptera	Pieridae	Leptidea	amurensis
Lepidoptera	Pieridae	Leptidea	juvernica
Lepidoptera	Pieridae	Leptidea	reali
Lepidoptera	Pieridae	Leptidea	sinapis
Anura	Leptodactylidae	Leptodactylus	macrosternum
Anura	Leptodactylidae	Leptodactylus	pentadactylus
Anura	Leptodactylidae	Leptodactylus	petersii
Anura	Leptodactylidae	Leptodactylus	riveroi
Siluriformes	Doradidae	Leptodoras	cataniae
Hemiptera	Coreidae	Leptoglossus	gonagra
Hemiptera	Coreidae	Leptoglossus	neovexillatus
Hemiptera	Coreidae	Leptoglossus	zonatus
Hymenoptera	Figitidae	Leptopilina	boulardi
Hymenoptera	Figitidae	Leptopilina	heterotoma
Hymenoptera	Figitidae	Leptopilina	victoriae
Phasmatodea	Heteronemiidae	Leptynia	attenuata
Phasmatodea	Heteronemiidae	Leptynia	montana
Orthoptera	Tettigoniidae	Letana	inflata
Petromyzontiformes	Petromyzontidae	Lethenteron	camtschaticum
Cypriniformes	Cyprinidae	Leuciscus	cephalus
Cypriniformes	Cyprinidae	Leuciscus	idus
Cypriniformes	Cyprinidae	Leuciscus	leuciscus
Squamata	Pygopodidae	Lialis	burtonis
Squamata	Pygopodidae	Lialis	jacari
Characiformes	Triportheidae	Lignobrycon	myersi

Siluriformes	Loricariidae	Liposarcus	multiradiatus
Perciformes	Mugilidae	Liza	ramada
Orthoptera	Acrididae	Locusta	migratoria
Chiroptera	Phyllostomidae	Lonchophylla	mordax
Chiroptera	Phyllostomidae	Lonchophylla	thomasi
Chiroptera	Phyllostomidae	Lonchorhina	aurita
Chiroptera	Phyllostomidae	Lophostoma	occidentalis
Chiroptera	Phyllostomidae	Lophostoma	silvicola
Siluriformes	Loricariidae	Loricaria	cataphracta
Gadiformes	Lotidae	Lota	lota
Diptera	Calliphoridae	Lucilia	cluvia
Diptera	Calliphoridae	Lucilia	sericata
Perciformes	Lutjanidae	Lutjanus	alexandrei
Perciformes	Lutjanidae	Lutjanus	analís
Perciformes	Lutjanidae	Lutjanus	griseus
Perciformes	Lutjanidae	Lutjanus	jocu
Perciformes	Lutjanidae	Lutjanus	synagris
Perciformes	Lutjanidae	Lutjanus	synagris
Perciformes	Zoarcidae	Lycodes	eudipleurostictus
Perciformes	Zoarcidae	Lycodes	pallidus
Perciformes	Zoarcidae	Lycodes	seminudus
Perciformes	Zoarcidae	Lycodes	squamiventer
Perciformes	Zoarcidae	Lycodichthys	dearborni
Hemiptera	Lygaeidae	Lygaeus	peruvianus
Coleoptera	Melolonthidae	Lyogenys	fuscus
Primates	Cercopithecidae	Macaca	fascicularis
Primates	Cercopithecidae	Macaca	mullata
Veneroida	Tellinidae	Macoma	nasuta
Cardiida	Tellinidae	Macomangulus	tenuis
Macrostomida	Macrostomidae	Macrostomum	lignano
Macrostomida	Macrostomidae	Macrostomum	sp.
Chiroptera	Phyllostomidae	Macrotus	californicus
Chiroptera	Phyllostomidae	Macrotus	waterhousii
Bivalvia	Mactridae	Mactra	stultorum
Hemiptera	Cercopidae	Mahanarva	fimbriolata
Hemiptera	Cercopidae	Mahanarva	liturata
Hemiptera	Cercopidae	Mahanarva	quadripunctata
Hemiptera	Cercopidae	Mahanarva	spectabilis
Hemiptera	Cercopidae	Mahanarva	tristis
Hemiptera	Cercopidae	Mahanarva	vittata
Hemiptera	Coreidae	Machtima	crucigera
Osmeriformes	Osmeridae	Mallotus	villosus
Lepidoptera	Noctuidae	Mamestra	brassicae
Lepidoptera	Sphingidae	Manduca	sexta
Hemiptera	Myerslopiidae	Mapuchea	chilensis
Didelphimorphia	Didelphidae	Marmosa	demerarae
Didelphimorphia	Didelphidae	Marmosa	murina
Didelphimorphia	Didelphidae	Marmosops	bishopi
Didelphimorphia	Didelphidae	Marmosops	impavidus
Didelphimorphia	Didelphidae	Marmosops	pakaraimae

Didelphimorphia	Didelphidae	Marmosops	parvidens
Didelphimorphia	Didelphidae	Marmosops	pinheiroi
Squamata	Colubridae	Masticophis	flagellum
Phasmatodea	Phasmatidae	Medauroidea	extradentata
Siluriformes	Loricariidae	Megalancistrus	parananus
Piciformes	Picidae	Melanerpes	candidus
Perciformes	Cichlidae	Melanochromis	auratus
Littorinimorpha	Littorinidae	Melarhappe	neritoides
Galliformes	Phasianidae	Meleagris	gallopavo
Coleoptera	Scarabaeidae	Melolontha	melolontha
Hemiptera	Membracidae	Membracis	foliatofasciata
Hemiptera	Triatominae	Mepraia	gajardoi
Hemiptera	Triatominae	Mepraia	spinolai
Gadiformes	Merlucciidae	Merluccius	merluccius
Rodentia	Cricetidae	Mesocricetus	auratus
Perciformes	Cichlidae	Mesonauta	festivus
Cypriniformes	Nemacheilidae	Mesonoemacheilus	guentheri
Chiroptera	Phyllostomidae	Mesophylla	macconnelli
Didelphimorphia	Didelphidae	Metachirus	nudicaudatus
Perciformes	Cichlidae	Metriaclima	barlowi
Perciformes	Cichlidae	Metriaclima	lombardoi
Perciformes	Cichlidae	Metriaclima	zebra
Coleoptera	Chrysomelidae	Microctenochira	gnata
Coleoptera	Chrysomelidae	Microctenochira	optata
Coleoptera	Chrysomelidae	Microctenochira	stigmatica
Siluriformes	Pseudopimelodidae	Microglanis	cottoides
Perciformes	Centrarchidae	Micropterus	salmoides
Gymnotiformes	Hypopomidae	Microsternarchus	bilineatus
Gymnotiformes	Hypopomidae	Microsternarchus	bilineatus
Rodentia	Cricetidae	Microtus	agrestis
Pulmonata	Milacidae	Milax	nigricans
Ostreoida	Pectinidae	Mimachlamys	varia
Chiroptera	Phyllostomidae	Mimon	crenulatum
Opiliones	Stylocellidae	Miopsalis	sp.
Cypriniformes	Cobitidae	Misgurnus	anguillicaudatus
Cypriniformes	Cobitidae	Misgurnus	fossilis
Characiformes	Characidae	Moenkhausia	sanctaeofilomenae
Heterodonta	Tellinidae	Moerella	donacina
Chiroptera	Molossidae	Molossus	ater
Chiroptera	Molossidae	Molossus	molossus
Chiroptera	Molossidae	Molossus	planirostris
Didelphimorphia	Didelphidae	Monodelphis	adusta
Didelphimorphia	Didelphidae	Monodelphis	brevicaudata
Didelphimorphia	Didelphidae	Monodelphis	emiliae
Didelphimorphia	Didelphidae	Monodelphis	sp.
Didelphimorphia	Didelphidae	Monodelphis	totuan
Chiroptera	Phyllostomidae	Monophyllus	redmani
Synbranchiformes	Synbranchidae	Monopterus	albus
Hemiptera	Pentatomidae	Mormidea	notulifera
Hemiptera	Pentatomidae	Mormidea	v-luteum

Chiroptera	Mormoopidae	Mormoops	blainvilli
Mugiliformes	Mugilidae	Mugil	cephalus
Mugiliformes	Mugilidae	Mugil	curema
Mugiliformes	Mugilidae	Mugil	incilis
Mugiliformes	Mugilidae	Mugil	liza
Mugiliformes	Mugilidae	Mugil	rubrioculus
Cardiida	Mactridae	Mulinia	lateralis
Artiodactyla	Cervidae	Muntiacus	mntjak
Rodentia	Muridae	Mus	booduga
Rodentia	Muridae	Mus	caroli
Rodentia	Muridae	Mus	cervicolor
Rodentia	Muridae	Mus	cooki
Rodentia	Muridae	Mus	cypriacus
Rodentia	Muridae	Mus	dunni
Rodentia	Muridae	Mus	famulus
Rodentia	Muridae	Mus	fragilicauda
Rodentia	Muridae	Mus	haussa
Rodentia	Muridae	Mus	hortulanus
Rodentia	Muridae	Mus	indutus
Rodentia	Muridae	Mus	macedonicus
Rodentia	Muridae	Mus	matthey
Rodentia	Muridae	Mus	minutoides
Rodentia	Muridae	Mus	musculoides
Rodentia	Muridae	Mus	musculus
Rodentia	Muridae	Mus	musculus
Rodentia	Muridae	Mus	musculus
Rodentia	Muridae	Mus	musculus
Rodentia	Muridae	Mus	musculus
Rodentia	Muridae	Mus	musculus
Rodentia	Muridae	Mus	pahari
Rodentia	Muridae	Mus	platythrix
Rodentia	Muridae	Mus	spicilegus
Rodentia	Muridae	Mus	spretus
Rodentia	Muridae	Mus	terricolor
Hymenoptera	Formicidae	Mycocephurus	goeldii
Hemiptera	Issidae	Mycterodus	pallens
Characiformes	Characidae	Myleus	micans
Characiformes	Serrasalminidae	Mylossoma	aureum
Characiformes	Serrasalminidae	Mylossoma	duriventre
Chiroptera	Vespertilionidae	Myotis	keyasi
Chiroptera	Vespertilionidae	Myotis	thysanodes
Siluriformes	Bagridae	Mystus	atrifasciatus
Siluriformes	Bagridae	Mystus	bocourti
Siluriformes	Bagridae	Mystus	multiradiatus
Siluriformes	Bagridae	Mystus	mysticetus
Mytiloidea	Mytilidae	Mytilus	californianus
Mytiloidea	Mytilidae	Mytilus	edulis
Mytiloidea	Mytilidae	Mytilus	galloprovincialis
Mytiloidea	Mytilidae	Mytilus	platensis
Mytiloidea	Mytilidae	Mytilus	trossulus
Hemiptera	Aphididae	Myzus	persicae

Squamata	Elapidae	Naja	naja
Cypriniformes	Nemacheilidae	Nemacheilus	binotatus
Cypriniformes	Nemacheilidae	Nemachilichthys	ruppelli
Characiformes	Caracidae	Nematocharax	venustus
Perciformes	Channichthyidae	Neopagetopsis	ionah
Siluriformes	Loricariidae	Neoplecostomus	microps
Hemiptera	Membracidae	Neotynelia	pubescens
Hemiptera	Nepidae	Nepa	cinerea
Squamata	Colubridae	Nerodia	faciata
Squamata	Colubridae	Nerodia	rhomبifer
Gasterosteiformes	Syngnathidae	Nerophis	ophidion
Coleoptera	Carabidae	Nesarpalus	fortunatus
Perciformes	Sciaenidae	Nibea	albiflora
Orthoptera	Pamphagidae	Nocaracris	cyanipes
Orthoptera	Pamphagidae	Nocaracris	sp.
Chiroptera	Noctilionidae	Noctilio	albiventris
Ostreoida	Pectinidae	Nodipecten	nodosus
Perciformes	Nototheniidae	Notothenia	coriiceps
Hemiptera	Cercopidae	Notozulia	entretiana
Veneroida	Psammobiidae	Nuttallia	nuttallii
Carnivora	Canidae	Nyctereutes	procyonoides
Primates	Lorisidae	Nycticebus	bengalensis
Chiroptera	Vespertilionidae	Nycticeius	humeralis
Lepidoptera	Nymphalidae	Nymphalis	xanthomelas
Haplotaхida	Lumbricidae	Octodrilus	complanatus
Perciformes	Lutjanidae	Ocyurus	chrysurus
Artiodactyla	Bovidae	Odocoileus	virginianus
Coleoptera	Carabidae	Odontocarus	cephalotes
Coleoptera	Cicindelidae	Odontocheila	confusa
Coleoptera	Cicindelidae	Odontocheila	nodicornis
Characiformes	Characidae	Odontostilbe	pequiria
Hemiptera	Pentatomidae	Oebalus	poecilus
Rodentia	Cricetidae	Oecomys	ayantepui
Rodentia	Cricetidae	Oecomys	bicolor
Rodentia	Cricetidae	Oecomys	rutilus
Perciformes	Mugilidae	Oedalechilus	labeo
Orthoptera	Acrididae	Oedipoda	coerulescens
Orthoptera	Acrididae	Oedipoda	fuscocincta
Orthoptera	Acrididae	Oedipoda	charpentieri
Hemiptera	Lygaeidae	Ochrimnus	sagax
Characiformes	Characidae	Oligosarcus	hepsetus
Characiformes	Characidae	Oligosarcus	jenysii
Characiformes	Characidae	Oligosarcus	pintoi
Anura	Hylidae	Ololygon	tripui
Orthoptera	Ommexechidae	Ommexecha	virens
Orthoptera	Acrididae	Omocestus	bolivari
Orthoptera	Acrididae	Omocestus	burri
Orthoptera	Acrididae	Omocestus	panteli
Orthoptera	Acrididae	Omocestus	raymondi
Siluriformes	Siluridae	Ompok	bimaculatus

Siluriformes	Siluridae	Ompok	pabda
Hemiptera	Cicadellidae	Oncometopia	facialis
Hemiptera	Lygaeidae	Oncopeltus	femorialis
Salmoniformes	Salmonidae	Oncorhynchus	keta
Salmoniformes	Salmonidae	Oncorhynchus	masou
Salmoniformes	Salmonidae	Oncorhynchus	mykiss
Salmoniformes	Salmonidae	Oncorhynchus	tshawytscha
Coleoptera	Scarabaeidae	Ontherus	apendiculatus
Coleoptera	Scarabaeidae	Ontherus	sulcator
Caudata	Hynobiidae	Onychodactylus	koreanus
Cypriniformes	Cyprinidae	Onychostoma	alticorpus
Cypriniformes	Cyprinidae	Onychostoma	barbatulum
Coleoptera	Carabidae	Ophonus	ardosiacus
Coleoptera	Carabidae	Ophonus	azureus
Coleoptera	Carabidae	Ophonus	cribricollis
Coleoptera	Carabidae	Ophonus	pumilio
Coleoptera	Carabidae	Ophonus	sabulicola
Aciculata	Dorvilleidae	Ophryotrocha	diadema
Aciculata	Dorvilleidae	Ophryotrocha	labronica
Aciculata	Dorvilleidae	Ophryotrocha	puerilis
Aciculata	Dorvilleidae	Ophryotrocha	robusta
Perciformes	Oplegnathidae	Oplegnathus	punctatus
Squamata	Opluridae	Oplurus	cuvieri
Squamata	Opluridae	Oplurus	cyclurus
Squamata	Opluridae	Oplurus	fierinensis
Squamata	Opluridae	Oplurus	grandidieri
Squamata	Opluridae	Oplurus	quadrifasciatus
Anura	Craugastoridae	Oreobates	barituensis
Anura	Craugastoridae	Oreobates	berdemenos
Anura	Craugastoridae	Oreobates	discoidalis
Perciformes	Cichlidae	Oreochromis	aureus
Perciformes	Cichlidae	Oreochromis	honorum
Perciformes	Cichlidae	Oreochromis	mossambicus
Perciformes	Cichlidae	Oreochromis	niloticus
Cyprinodontiformes	Cyprinodontidae	Orestias	ascotanensis
Lepidoptera	Lymantriidae	Orgyia	leucostigma
Lepidoptera	Lymantriidae	Orgyia	recens
Monotremata	Ornithorhynchidae	Ornithorhynchus	anatinus
Orthoptera	Pamphagidae	Oronothrotes	fervus
Orthoptera	Acrididae	Orphulella	punctata
Characiformes	Characidae	Orthospinus	franciscensis
Lagomorpha	Leporidae	Oryctolagus	cuniculus
Osmeriformes	Osmeridae	Osmerus	eperlanus
Lepidoptera	Crambidae	Ostrinia	nubilalis
Artiodactyla	Bovidae	Ovis	aries
Opisthobranchia	Oxyroidae	Oxynocheilus	olivacea
Perciformes	Channichthyidae	Pagetopsis	macropterus
Perciformes	Sparidae	Pagrus	auriga
Perciformes	Sparidae	Pagrus	pagrus
Hemiptera	Issidae	Palaeolithium	distinguendum

Neuroptera	Myrmeleontidae	Palpares	libelluloides
Primates	Hominidae	Pan	paniscus
Primates	Hominidae	Pan	troglydytes
Siluriformes	Loricariidae	Panaqolus	sp.
Siluriformes	Loricariidae	Panaque	armbrusteri
Hemiptera	Triatominae	Panstrongylus	chinai
Hemiptera	Triatominae	Panstrongylus	lignarius
Hemiptera	Triatominae	Panstrongylus	megistus
Osteoglossiformes	Pantodontidae	Pantodon	buchholzi
Cypriniformes	Nemacheilidae	Paracanthocobitis	pictilis
Cypriniformes	Nemacheilidae	Paracanthocobitis	zonalternans
Camarodonta	Parechinidae	Paracentrotus	lividus
Orthoptera	Acrididae	Paracinema	tricolor
Perciformes	Cichlidae	Parachromis	managuensis
Pleuronectiformes	Paralichthyidae	Paralichthys	olivaceus
Pleuronectiformes	Paralichthyidae	Paralichthys	orbignyanus
Pleuronectiformes	Paralichthyidae	Paralichthys	patagonicus
Opiliones	Sironidae	Paramiopsalis	ramulosus
Orthoptera	Pamphagidae	Paranocaracris	cytripes
Orthoptera	Pamphagidae	Paranocaracris	cytripes
Orthoptera	Pamphagidae	Paranocaracris	rubripes
Orthoptera	Pamphagidae	Paranocaracris	sureyana
Orthoptera	Pamphagidae	Paranocarodes	fieberi
Orthoptera	Pamphagidae	Paranocarodes	fieberi
Orthoptera	Pamphagidae	Paranocarodes	straubei
Orthoptera	Pamphagidae	Paranocarodes	turkmen
Orthoptera	Pamphagidae	Paranothrotes	opacus
Orthoptera	Tettigoniidae	Parapholidoptera	belen
Orthoptera	Tettigoniidae	Parapholidoptera	castaneoviridis
Orthoptera	Tettigoniidae	Parapholidoptera	distincta
Orthoptera	Tettigoniidae	Parapholidoptera	grandis
Orthoptera	Tettigoniidae	Parapholidoptera	noxia
Orthoptera	Tettigoniidae	Parapholidoptera	syriaca
Gymnotiformes	Apterodontidae	Parapteronotus	hasemani
Opiliones	Pettalidae	Parapurcellia	amatola
Orthoptera	Tettigoniidae	Parapyrrhicia	abdita
Orthoptera	Tettigoniidae	Parapyrrhicia	acutilobata
Orthoptera	Tettigoniidae	Parapyrrhicia	diamantina
Coleoptera	Chrysomelidae	Paraselenis	flava
Siluriformes	Auchenipteridae	Parauchenipterus	galeatus
Siluriformes	Loricariidae	Pareiorhaphis	splendens
Orthoptera	Tettigoniidae	Parnassiana	coracis
Orthoptera	Tettigoniidae	Parnassiana	fusca
Orthoptera	Tettigoniidae	Parnassiana	gionica
Orthoptera	Tettigoniidae	Parnassiana	chelmos
Orthoptera	Tettigoniidae	Parnassiana	chelmos
Orthoptera	Tettigoniidae	Parnassiana	menalon
Orthoptera	Tettigoniidae	Parnassiana	parnassica
Orthoptera	Tettigoniidae	Parnassiana	tymphrestos
Characiformes	Parodontidae	Parodon	hilarii

Characiformes	Parodontidae	Parodon	nasus
Characiformes	Parodontidae	Parodon	tortuosus
Coleoptera	Carabidae	Parophonus	hespericus
Coleoptera	Carabidae	Parophonus	hispanus
Hymenoptera	Apidae	Partamona	helleri
Hymenoptera	Apidae	Partamona	seridoensis
Perciformes	Nototheniidae	Patagonotothen	guntheri
Perciformes	Nototheniidae	Patagonotothen	ramsayi
Perciformes	Nototheniidae	Patagonotothen	tessellata
Ostreoida	Pectinidae	Patinopecten	yessoensis
Ostreoida	Pectinidae	Pecten	maximus
Testudines	Trionychidae	Pelodiscus	sinensis
Testudines	Pelomedusidae	Pelomedusa	subrufa
Anura	Ranidae	Pelophylax	esculentus
Anura	Ranidae	Pelophylax	lessonae
Anura	Ranidae	Pelophylax	ridibundus
Testudines	Podocnemididae	Peltocephalus	dumerilianus
Mytiloida	Mytilidae	Perna	perna
Rodentia	Muridae	Peromyscus	eremicus
Mytiloida	Mytilidae	Perumytilus	purpuratus
Veneroida	Veneridae	Petricola	litophaga
Petromyzontiformes	Petromyzontidae	Petromyzon	marinus
Squamata	Iguanidae	Petrosaurus	mearnsi
Cypriniformes	Nemacheilidae	Petruichthys	brevis
Orthoptera	Acrididae	Pezotettix	giornae
Phasmatodea	Diapheromeridae	Phaenopharos	khaoyaiensis
Coleoptera	Scarabaeidae	Phanaeus	splendidulus
Anura	Hylidae	Phasmahyla	spectabilis
Orthoptera	Tettigoniidae	Pholidoptera	aptera
Orthoptera	Tettigoniidae	Pholidoptera	aptera
Orthoptera	Tettigoniidae	Pholidoptera	aptera
Orthoptera	Tettigoniidae	Pholidoptera	brevipes
Orthoptera	Tettigoniidae	Pholidoptera	dalmatica
Orthoptera	Tettigoniidae	Pholidoptera	fallax
Orthoptera	Tettigoniidae	Pholidoptera	frivaldszkyi
Orthoptera	Tettigoniidae	Pholidoptera	griseoptera
Orthoptera	Tettigoniidae	Pholidoptera	littoralis
Orthoptera	Tettigoniidae	Pholidoptera	macedonica
Orthoptera	Tettigoniidae	Pholidoptera	pustulipes
Orthoptera	Tettigoniidae	Pholidoptera	rhodopensis
Orthoptera	Tettigoniidae	Pholidoptera	stankoi
Araneae	Ctenidae	Phoneutria	nigriventer
Siluriformes	Pimelodidae	Phractocephalus	hemiliopterus
Squamata	Iguanidae	Phrynosoma	cornutum
Squamata	Iguanidae	Phrynosoma	modestum
Squamata	Iguanidae	Phrynosoma	solare
Hemiptera	Coreidae	Phtia	picta
Chiroptera	Phyllostomidae	Phylloderma	stenops
Anura	Hylidae	Phyllodytes	edelmoi
Anura	Hylidae	Phyllodytes	luteolus

Anura	Hylidae	Phyllomedusa	bahiana
Anura	Hylidae	Phyllomedusa	distincta
Anura	Hylidae	Phyllomedusa	nordestina
Anura	Hylidae	Phyllomedusa	rohdei
Anura	Hylidae	Phyllomedusa	tarsius
Anura	Hylidae	Phyllomedusa	vaiillanti
Rodentia	Echimyidae	Phyllomys	lamarum
Rodentia	Echimyidae	Phyllomys	sp.
Coleoptera	Melolonthidae	Phyllophaga	capillata
Coleoptera	Melolonthidae	Phyllophaga	vestita
Chiroptera	Phyllostomidae	Phyllostomus	discolor
Chiroptera	Phyllostomidae	Phyllostomus	elongatus
Chiroptera	Phyllostomidae	Phyllostomus	hastatus
Anura	Leiuperidae	Physalaemus	cuvieri
Anura	Leiuperidae	Physalaemus	ephippifer
Hemiptera	Tingidae	Physatocheila	confinis
Cypriniformes	Nemacheilidae	Physoschistura	elongata
Cypriniformes	Nemacheilidae	Physoschistura	sp.
Characiformes	Characidae	Piabina	argentea
Characiformes	Characidae	Piabucus	melanostomus
Characiformes	Serrasalminidae	Piaractus	mesopotamicus
Lepidoptera	Pieridae	Pieris	brassicae
Lepidoptera	Pieridae	Pieris	rapae
Siluriformes	Heptapteridae	Pimelodella	avanhandavae
Siluriformes	Heptapteridae	Pimelodella	boschmai
Siluriformes	Heptapteridae	Pimelodella	gracilis
Siluriformes	Heptapteridae	Pimelodella	chagresi
Siluriformes	Heptapteridae	Pimelodella	lateristriga
Siluriformes	Heptapteridae	Pimelodella	meeki
Siluriformes	Heptapteridae	Pimelodella	sp.
Siluriformes	Heptapteridae	Pimelodella	vittata
Siluriformes	Pimelodidae	Pimelodus	britskii
Siluriformes	Pimelodidae	Pimelodus	fur
Siluriformes	Pimelodidae	Pimelodus	maculatus
Siluriformes	Pimelodidae	Pimelodus	sp.
Chiroptera	Vespertilionidae	Pipistrellus	subflavus
Squamata	Colubridae	Pituophis	melanoleucus
Orthoptera	Tettigoniidae	Plangia	multimaculata
Orthoptera	Tettigoniidae	Plangia	satiscaerulea
Scleractinia	Merulinidae	Platygyra	contorta
Phyllodocida	Nereididae	Platynereis	dumerilii
Chiroptera	Phyllostomidae	Platyrrhinus	incarum
Chiroptera	Phyllostomidae	Platyrrhinus	lineatus
Perciformes	Haemulidae	Plectorhinchus	mediterraneus
Orthoptera	Acrididae	Podisma	pedestris
Testudines	Podocnemidae	Podocnemis	expansa
Testudines	Podocnemidae	Podocnemis	unifilis
Orthoptera	Tettigoniidae	Poecilimon	affinis
Orthoptera	Tettigoniidae	Poecilimon	ampliatius
Orthoptera	Tettigoniidae	Poecilimon	anatolicus

Orthoptera	Tettigoniidae	Poecilimon	armeniacus
Orthoptera	Tettigoniidae	Poecilimon	aturki
Orthoptera	Tettigoniidae	Poecilimon	bischoffi
Orthoptera	Tettigoniidae	Poecilimon	bosphoricus
Orthoptera	Tettigoniidae	Poecilimon	brunneri
Orthoptera	Tettigoniidae	Poecilimon	celebi
Orthoptera	Tettigoniidae	Poecilimon	cervus
Orthoptera	Tettigoniidae	Poecilimon	ebneri
Orthoptera	Tettigoniidae	Poecilimon	ersisi
Orthoptera	Tettigoniidae	Poecilimon	glandifer
Orthoptera	Tettigoniidae	Poecilimon	heinrichi
Orthoptera	Tettigoniidae	Poecilimon	chopardi
Orthoptera	Tettigoniidae	Poecilimon	jablanicensis
Orthoptera	Tettigoniidae	Poecilimon	jonicus
Orthoptera	Tettigoniidae	Poecilimon	karakushi
Orthoptera	Tettigoniidae	Poecilimon	klisuriensis
Orthoptera	Tettigoniidae	Poecilimon	ledereri
Orthoptera	Tettigoniidae	Poecilimon	macedonicus
Orthoptera	Tettigoniidae	Poecilimon	marmaraensis
Orthoptera	Tettigoniidae	Poecilimon	martinae
Orthoptera	Tettigoniidae	Poecilimon	miramae
Orthoptera	Tettigoniidae	Poecilimon	orbelicus
Orthoptera	Tettigoniidae	Poecilimon	ornatus
Orthoptera	Tettigoniidae	Poecilimon	pechevi
Orthoptera	Tettigoniidae	Poecilimon	pliginskii
Orthoptera	Tettigoniidae	Poecilimon	roseoviridis
Orthoptera	Tettigoniidae	Poecilimon	serratus
Orthoptera	Tettigoniidae	Poecilimon	schmidtii
Orthoptera	Tettigoniidae	Poecilimon	similis
Orthoptera	Tettigoniidae	Poecilimon	toros
Orthoptera	Tettigoniidae	Poecilimon	turcicus
Orthoptera	Tettigoniidae	Poecilimon	ukrainicus
Orthoptera	Tettigoniidae	Poecilimon	zonatus
Orthoptera	Tettigoniidae	Poecilimon	zwicki
Perciformes	Artedidraconidae	Pogonophryne	sp.
Tricladida	Dugesidae	Polycelis	tenuis
Acipenseriformes	Polyodontidae	Polyodon	spathula
Lepidoptera	Lycaenidae	Polyommatus	bellargus
Lepidoptera	Lycaenidae	Polyommatus	icarus
Polypteriformes	Polypteridae	Polypterus	ornatipinnis
Polypteriformes	Polypteridae	Polypterus	senegalus
Echinorhynchida	Pomphorhynchidae	Pomphorhynchus	laevis
Echinorhynchida	Pomphorhynchidae	Pomphorhynchus	tereticollis
Primates	Hominidae	Pongo	pygmaeus
Batrachoidiformes	Batrachoididae	Porichthys	plectrodon
Characiformes	Curimatidae	Potamorhina	altamazonica
Characiformes	Curimatidae	Potamorhina	latior
Characiformes	Curimatidae	Potamorhina	pristigaster
Diprotodontia	Potoridae	Potorous	tridactylis
Isopoda	Asellidae	Proasellus	coxalis

Characiformes	Prochilodontidae	Prochilodus	argenteus
Characiformes	Prochilodontidae	Prochilodus	lineatus
Characiformes	Prochilodontidae	Prochilodus	nigricans
Hemiptera	Pentatomidae	Proxys	albopunctulatus
Hemiptera	Triatominae	Psammolestes	tertius
Anura	Hylidae	Pseudis	tocantins
Cypriniformes	Cyprinidae	Pseudochondrostoma	duriense
Cypriniformes	Cyprinidae	Pseudochondrostoma	polyleptis
Siluriformes	Bagridae	Pseudomystus	siamensis
Coleoptera	Carabidae	Pseudoophonus	calceatus
Coleoptera	Carabidae	Pseudoophonus	griseus
Coleoptera	Carabidae	Pseudoophonus	rufipes
Siluriformes	Pimelodidae	Pseudoplatystoma	corruscans
Siluriformes	Pimelodidae	Pseudoplatystoma	reticulatum
Orthoptera	Pamphagidae	Pseudosavalania	karabagi
Perciformes	Cichlidae	Pseudotropheus	tropheus
Neognathae	Psittacidae	Psittacus	erithacus
Rheiformes	Rheidae	Pterocnemia	pennata
Scorpaeniformes	Scorpaenidae	Pterois	lunulata
Scorpaeniformes	Scorpaenidae	Pterois	radiata
Scorpaeniformes	Scorpaenidae	Pterois	volitans
Cypriniformes	Nemacheilidae	Pteronemacheilus	lucidorsum
Chiroptera	Mormoopidae	Pteronotus	quadridens
Perciformes	Cichlidae	Pterophyllum	leopoldi
Perciformes	Cichlidae	Pterophyllum	scalare
Siluriformes	Loricariidae	Pterygoplichthys	ambrosettii
Orthoptera	Tettigoniidae	Pycnogaster	cucullata
Orthoptera	Pyrgomorphidae	Pyrgomorpha	guentheri
Characiformes	Lebiasinidae	Pyrrhulina	australis
Characiformes	Lebiasinidae	Pyrrhulina	australis
Anura	Discoglossidae	Quasipaa	boulengeri
Orthoptera	Romaleidae	Radacridium	mariajoseae
Orthoptera	Romaleidae	Radacridium	nordestinum
Perciformes	Rachycentridae	Rachycentron	canadum
Rajiformes	Rajidae	Raja	asterias
Batoidei	Rajidae	Raja	montagui
Anura	Ranidae	Rana	catesbeiana
Anura	Ranidae	Rana	esculenta
Anura	Ranidae	Rana	graeca
Anura	Ranidae	Rana	temporaria
Rodentia	Muridae	Rattus	norvegicus
Rodentia	Muridae	Rattus	rattus
Perciformes	Cichlidae	Retroculus	lapidifer
Gymnotiformes	Sternopygidae	Rhabdolichops	eastwardi
Gymnotiformes	Sternopygidae	Rhabdolichops	troscheli
Siluriformes	Heptapteridae	Rhamdia	quelen
Siluriformes	Heptapteridae	Rhamdiopsis	microcephala
Orthoptera	Acrididae	Rhammatocerus	brasiliensis
Orthoptera	Arctiidae	Rhammatocerus	brunneri
Orthoptera	Arctiidae	Rhammatocerus	palustris

Orthoptera	Arctiidae	Rhammatocerus	pictus
Squamata	Chamaeleonidae	Rhampholeon	temporalis
Rheiformes	Rheidae	Rhea	americana
Siluriformes	Loricariidae	Rhinelepis	aspera
Chiroptera	Rhinolophidae	Rhinolophus	hipposideros
Characiformes	Characidae	Rhoadsia	altipinna
Cypriniformes	Cyprinidae	Rhodeus	amarus
Cypriniformes	Cyprinidae	Rhodeus	ocellatus
Hemiptera	Triatominae	Rhodnius	colombiensis
Hemiptera	Triatominae	Rhodnius	domesticus
Hemiptera	Triatominae	Rhodnius	pallescens
Hemiptera	Triatominae	Rhodnius	prolixus
Chiroptera	Vespertilionidae	Rhogeessa	tumida
Perciformes	Lutjanidae	Rhomboplites	aurorubens
Scorpiones	Buthidae	Rhopalurus	agamemnon
Scorpiones	Buthidae	Rhopalurus	rochai
Characiformes	Anostomidae	Rhytidodus	microlepis
Squamata	Chamaeleonidae	Rieppeleon	brevicaudatus
Siluriformes	Loricariidae	Rineloricaria	capitonia
Siluriformes	Loricariidae	Rineloricaria	latirostris
Siluriformes	Loricariidae	Rineloricaria	lima
Siluriformes	Loricariidae	Rineloricaria	pentamaculata
Siluriformes	Loricariidae	Rineloricaria	stellata
Orthoptera	Acrididae	Ronderosia	bergi
Chiroptera	Pteropidae	Rousettus	aegyptiacus
Veneroida	Veneridae	Ruditapes	decussatus
Veneroida	Veneridae	Ruditapes	philippinarum
Falconiformes	Accipitridae	Rupornis	magnirostris
Perciformes	Serranidae	Rypticus	randalli
Chiroptera	Emballonuridae	Saccopteryx	bilineata
Characiformes	Bryconidae	Salminus	brasiliensis
Characiformes	Bryconidae	Salminus	hilarii
Salmoniformes	Salmonidae	Salmo	salar
Salmoniformes	Salmonidae	Salmo	trutta
Passeriformes	Cardinalidae	Saltator	aurantiiostris
Passeriformes	Cardinalidae	Saltator	similis
Salmoniformes	Salmonidae	Salvelinus	alpinus
Salmoniformes	Salmonidae	Salvelinus	confluentis
Salmoniformes	Salmonidae	Salvelinus	fontinalis
Salmoniformes	Salmonidae	Salvelinus	malma
Salmoniformes	Salmonidae	Salvelinus	namaycush
Lepidoptera	Saturniidae	Samia	cynthia
Perciformes	Percidae	Sander	lucioperca
Falconiformes	Cathartidae	Sarcoramphus	papa
Perciformes	Cichlidae	Satanoperca	jurupari
Perciformes	Cichlidae	Satanoperca	lilith
Squamata	Iguanidae	Sauromalus	obesus
Squamata	Iguanidae	Sceloporus	clarki
Squamata	Iguanidae	Sceloporus	graciosus
Squamata	Iguanidae	Sceloporus	grammicus

Squamata	Iguanidae	Sceloporus	jarrovi
Squamata	Iguanidae	Sceloporus	magister
Squamata	Iguanidae	Sceloporus	merriami
Squamata	Iguanidae	Sceloporus	occidentalis
Squamata	Iguanidae	Sceloporus	olivaceus
Squamata	Iguanidae	Sceloporus	orcutti
Squamata	Iguanidae	Sceloporus	palaciosi
Squamata	Iguanidae	Sceloporus	poinsetti
Squamata	Iguanidae	Sceloporus	scalaris
Squamata	Iguanidae	Sceloporus	serrifer
Squamata	Iguanidae	Sceloporus	undulatus
Squamata	Iguanidae	Sceloporus	variabilis
Squamata	Iguanidae	Sceloporus	virgatus
Siluriformes	Ariidae	Sciades	sp.
Anura	Hylidae	Scinax	auratus
Anura	Hylidae	Scinax	eurydice
Rodentia	Sciuridae	Sciurus	aestuans
Osteoglossiformes	Osteoglossidae	Scleropages	formosus
Siluriformes	Loricariidae	Scobinancistrus	aureatus
Siluriformes	Loricariidae	Scobinancistrus	pariolispos
Pleuronectiformes	Scophthalmidae	Scophthalmus	maximus
Hemiptera	Issidae	Scorlupella	discolor
Scorpaeniformes	Scorpaenidae	Scorpaena	plumieri
Carcharhiniformes	Scyliorhinidae	Scyliorhinus	canicula
Carcharhiniformes	Scyliorhinidae	Scyliorhinus	stellaris
Characiformes	Prochilodontidae	Semaprochilodus	insignis
Characiformes	Prochilodontidae	Semaprochilodus	taeniurus
Cypriniformes	Nemacheilidae	Seminemacheilus	lendlii
Passeriformes	Fringillidae	Serinus	canaria
Characiformes	Characidae	Serrapinnus	heterodon
Characiformes	Characidae	Serrapinnus	notomelas
Characiformes	Characidae	Serrapinnus	piaba
Characiformes	Serrasalminidae	Serrasalmus	altispinnis
Characiformes	Serrasalminidae	Serrasalmus	gouldingi
Characiformes	Serrasalminidae	Serrasalmus	serrulatus
Heterodonta	Tellinidae	Serratina	serrata
Orthoptera	Acrididae	Shirakiacris	shirakii
Orthoptera	Acrididae	Schistocerca	flavofasciata
Orthoptera	Acrididae	Schistocerca	gregaria
Orthoptera	Acrididae	Schistocerca	pallens
Cypriniformes	Nemacheilidae	Schistura	bolavenensis
Cypriniformes	Nemacheilidae	Schistura	corica
Cypriniformes	Nemacheilidae	Schistura	fasciolata
Cypriniformes	Nemacheilidae	Schistura	hypsiura
Cypriniformes	Nemacheilidae	Schistura	notostigma
Cypriniformes	Nemacheilidae	Schistura	pridii
Cypriniformes	Nemacheilidae	Schistura	savona
Characiformes	Anostomidae	Schizodon	altoparanae
Characiformes	Anostomidae	Schizodon	borelli
Characiformes	Anostomidae	Schizodon	fasciatus

Characiformes	Anostomidae	Schizodon	isognathum
Characiformes	Anostomidae	Schizodon	knerii
Characiformes	Anostomidae	Schizodon	nasutus
Characiformes	Anostomidae	Schizodon	vittatus
Phasmatodea	Diapheromeridae	Sipyloidea	sipylus
Opiliones	Sironidae	Siro	carpaticus
Squamata	Viperidae	Sistrurus	catenatus
Pleuronectiformes	Soleidae	Solea	senagalensis
Solenida	Soleidae	Solen	marginatus
Soricomorpha	Soricidae	Sorex	araneus
Soricomorpha	Soricidae	Sorex	granarius
Siluriformes	Pimelodidae	Sorubim	lima
Orthoptera	Tettigoniidae	Spalacomimus	talpa
Orthoptera	Tettigoniidae	Spalacomimus	verruciferus
Perciformes	Scaridae	Sparisoma	radians
Hemiptera	Coreidae	Spartocera	fusca
Perciformes	Sparidae	Sparus	auratus
Siluriformes	Loricariidae	Spatuloricaria	sp.
Orthoptera	Acrididae	Sphingonotus	azureus
Orthoptera	Acrididae	Sphingonotus	coerulans
Tetraodontiformes	Tetraodontidae	Sphoeroides	greeleyi
Tetraodontiformes	Tetraodontidae	Sphoeroides	testudineus
Perciformes	Sphyraenidae	Sphyraena	barracuda
Perciformes	Sphyraenidae	Sphyraena	guachancho
Perciformes	Sphyraenidae	Sphyraena	picudilla
Lepidoptera	Hesperiidae	Spialia	orbifer
Lepidoptera	Hesperiidae	Spialia	rosae
Lepidoptera	Hesperiidae	Spialia	sertorius
Bivalvia	Mactridae	Spisula	solida
Bivalvia	Mactridae	Spisula	subtruncata
Cypriniformes	Cyprinidae	Squalius	alburnoides
Cypriniformes	Cyprinidae	Squalius	pyrenaicus
Orthoptera	Acrididae	Stauroderus	scalaris
Testudines	Kinosternidae	Staurotypus	triporcatius
Perciformes	Pomacentridae	Stegastes	fuscus
Perciformes	Pomacentridae	Stegastes	variabilis
Siluriformes	Pimelodidae	Steindachneridion	melanodermatum
Siluriformes	Pimelodidae	Steindachneridion	parahybae
Characiformes	Curimatidae	Steindachnerina	biornata
Characiformes	Curimatidae	Steindachnerina	insculpta
Orthoptera	Acrididae	Stenobothrus	bolivari
Orthoptera	Acrididae	Stenobothrus	festivus
Coleoptera	Carabidae	Stenolophus	abdominalis
Hemiptera	Tingidae	Stephanitis	caucasica
Hemiptera	Tingidae	Stephanitis	pyri
Gymnotiformes	Apteronotidae	Sternarchogiton	preto
Gymnotiformes	Apteronotidae	Sternarchorhamphus	muelleri
Testudines	Kinosternidae	Sternotherus	odoratus
Beloniformes	Belonidae	Strongylura	marina
Beloniformes	Belonidae	Strongylura	timucu

Struthioniformes	Struthionidae	Struthio	camelus
Chiroptera	Phyllostomidae	Sturnira	lilium
Chiroptera	Phyllostomidae	Sturnira	ludovici
Phasmatodea	Heteropterygidae	Sungaya	inexpectata
Artiodactyla	Suidae	Sus	scrofa
Pleuronectiformes	Cynoglossidae	Symphurus	tessellatus
Perciformes	Cichlidae	Symphysodon	aequifasciatus
Perciformes	Cichlidae	Symphysodon	discus
Perciformes	Cichlidae	Symphysodon	haraldi
Synbranchiformes	Synbranchidae	Synbranchus	lampreia
Synbranchiformes	Synbranchidae	Synbranchus	madeirae
Synbranchiformes	Synbranchidae	Synbranchus	marmoratus
Artiodactyla	Bovidae	Syncerus	caffer
Gasterosteiformes	Syngnathidae	Syngnathus	abaster
Chiroptera	Vespertilionidae	Tadarida	brasiliensis
Passeriformes	Estrildidae	Taeniopygia	guttata
Myliobatiformes	Dasyatidae	Taeniura	lymma
Monotremata	Tachyglossidae	Tachyglossus	aculeatus
Cypriniformes	Cyprinidae	Tanakia	limbata
Veneroida	Veneridae	Tapes	rhomboides
Hymenoptera	Formicidae	Tapinoma	nigerrimum
Rodentia	Muridae	Taterillus	congius
Rodentia	Muridae	Taterillus	gracilis
Rodentia	Muridae	Taterillus	pygargus
Rodentia	Muridae	Taterillus	sp.
Rodentia	Muridae	Taterillus	tranieri
Artiodactyla	Bovidae	Taurotragus	oryx
Artiodactyla	Suidae	Tayassu	pecari
Siluriformes	Doradidae	Tenellus	leporhinus
Siluriformes	Doradidae	Tenellus	trimaculatus
Tetraodontiformes	Tetraodontidae	Tetraodon	fluviatilis
Tetraodontiformes	Tetraodontidae	Tetraodon	nigroviridis
Hemiptera	Issidae	Thabena	sp.
Perciformes	Labridae	Thalassoma	noronhanum
Batrachoidiformes	Batrachoididae	Thalassophryne	maculosa
Squamata	Colubridae	Thamnophis	marcianus
Squamata	Colubridae	Thamnophis	marcianus
Squamata	Colubridae	Thamnophis	sirtalis
Squamata	Phyllodactylidae	Thecadactylus	rapicauda
Orthoptera	Acrididae	Thisoicetrinus	pterostichus
Coleoptera	Geotrupidae	Thorectes	intermedius
Salmoniformes	Salmonidae	Thymallus	thymallus
Perciformes	Cichlidae	Tilapia	mamfe
Perciformes	Cichlidae	Tilapia	mariae
Scorpiones	Buthidae	Tityus	bahiensis
Scorpiones	Buthidae	Tityus	confluens
Scorpiones	Buthidae	Tityus	curupi
Scorpiones	Buthidae	Tityus	fasciolatus
Scorpiones	Buthidae	Tityus	martinpaechi
Scorpiones	Buthidae	Tityus	paraguayensis

Scorpiones	Buthidae	Tityus	trivittatus
Scorpiones	Buthidae	Tityus	uruguayensis
Chiroptera	Phyllostomidae	Tonatia	bidens
Chiroptera	Phyllostomidae	Tonatia	evotis
Chiroptera	Phyllostomidae	Tonatia	saurophila
Cypriniformes	Cyprinidae	Tor	chelynoides
Cypriniformes	Cyprinidae	Tor	khudree
Cypriniformes	Cyprinidae	Tor	mosal
Cypriniformes	Cyprinidae	Tor	mussullah
Cypriniformes	Cyprinidae	Tor	progeneius
Cypriniformes	Cyprinidae	Tor	putitora
Cypriniformes	Cyprinidae	Tor	tor
Hymenoptera	Torymidae	Torymus	bedeguaris
Characiformes	Toxotidae	Toxotes	chatareus
Testudines	Emydidae	Trachemys	scripta
Perciformes	Carangidae	Trachinotus	carolinus
Perciformes	Carangidae	Trachinotus	falcatus
Perciformes	Carangidae	Trachinotus	goodei
Chiroptera	Phyllostomidae	Trachops	cirrhosus
Anura	Hylidae	Trachycephalus	mesophaeus
Anura	Hylidae	Trachycephalus	sp.
Anura	Hylidae	Trachycephalus	typhonius
Siluriformes	Doradidae	Trachydoras	paraguayensis
Perciformes	Nototheniidae	Trematomus	borchgrevinski
Perciformes	Nototheniidae	Trematomus	eulepidotus
Perciformes	Nototheniidae	Trematomus	hansonii
Perciformes	Nototheniidae	Trematomus	lepidorhinus
Perciformes	Nototheniidae	Trematomus	newnesi
Perciformes	Nototheniidae	Trematomus	nicolai
Perciformes	Nototheniidae	Trematomus	pennelli
Perciformes	Nototheniidae	Trematomus	scotti
Hemiptera	Reduviidae	Triatoma	baratai
Hemiptera	Reduviidae	Triatoma	boliviana
Hemiptera	Reduviidae	Triatoma	brasiliensis
Hemiptera	Reduviidae	Triatoma	carcavalloii
Hemiptera	Reduviidae	Triatoma	carrioni
Hemiptera	Reduviidae	Triatoma	circummaculata
Hemiptera	Reduviidae	Triatoma	costalimai
Hemiptera	Reduviidae	Triatoma	delpontei
Hemiptera	Reduviidae	Triatoma	dimidiata
Hemiptera	Reduviidae	Triatoma	dimidiata
Hemiptera	Reduviidae	Triatoma	dimidiata
Hemiptera	Reduviidae	Triatoma	flavida
Hemiptera	Reduviidae	Triatoma	garciabesi
Hemiptera	Reduviidae	Triatoma	guasayana
Hemiptera	Reduviidae	Triatoma	guazu
Hemiptera	Reduviidae	Triatoma	infestans
Hemiptera	Reduviidae	Triatoma	infestans
Hemiptera	Reduviidae	Triatoma	jatai
Hemiptera	Reduviidae	Triatoma	jurbergi

Hemiptera	Reduviidae	Triatoma	klugi
Hemiptera	Reduviidae	Triatoma	lecticularia
Hemiptera	Reduviidae	Triatoma	maculata
Hemiptera	Reduviidae	Triatoma	matogrossensis
Hemiptera	Reduviidae	Triatoma	mazzottii
Hemiptera	Reduviidae	Triatoma	nitida
Hemiptera	Reduviidae	Triatoma	pallidipennis
Hemiptera	Reduviidae	Triatoma	patagonica
Hemiptera	Reduviidae	Triatoma	phyllosoma
Hemiptera	Reduviidae	Triatoma	pintodiasi
Hemiptera	Reduviidae	Triatoma	platensis
Hemiptera	Reduviidae	Triatoma	protracta
Hemiptera	Reduviidae	Triatoma	pseudomaculata
Hemiptera	Reduviidae	Triatoma	rubrofasciata
Hemiptera	Reduviidae	Triatoma	rubrovaria
Hemiptera	Reduviidae	Triatoma	sherlocki
Hemiptera	Reduviidae	Triatoma	sordida
Hemiptera	Reduviidae	Triatoma	tibiamaculata
Hemiptera	Reduviidae	Triatoma	vandae
Hemiptera	Reduviidae	Triatoma	vitticeps
Hemiptera	Reduviidae	Triatoma	williami
Hemiptera	Reduviidae	Triatoma	wygodzinsky
Hymenoptera	Chalcidoidea	Trichogramma	kaykai
Siluriformes	Trichomycteridae	Trichomycterus	brasiliensis
Pleuronectiformes	Achiridae	Trinectes	inscriptus
Pleuronectiformes	Achiridae	Trinectes	paulistanus
Pleuronectiformes	Achiridae	Trinectes	sp.
Squamata	Chamaeleonidae	Trioceros	bitaeniatus
Squamata	Chamaeleonidae	Trioceros	hoehnelii
Squamata	Chamaeleonidae	Trioceros	johnstoni
Squamata	Chamaeleonidae	Trioceros	melleri
Characiformes	Characidae	Triportheus	albus
Characiformes	Characidae	Triportheus	angulatus
Characiformes	Characidae	Triportheus	auritus
Characiformes	Characidae	Triportheus	guentheri
Characiformes	Characidae	Triportheus	nematurus
Characiformes	Characidae	Triportheus	pantanensis
Characiformes	Characidae	Triportheus	rotunadtus
Characiformes	Characidae	Triportheus	signatus
Characiformes	Characidae	Triportheus	trifurcatus
Characiformes	Characidae	Triportheus	venezulensis
Caudata	Salamandridae	Triturus	vulgaris
Trogoniformes	Trogonidae	Trogon	surrucura
Orthoptera	Romaleidae	Tropidacris	collaris
Orthoptera	Romaleidae	Tropidacris	cristata
Orthoptera	Acrididae	Tropidopola	cylindrica
Orthoptera	Acrididae	Tropidopola	graeca
Tubificida	Tubificidae	Tubifex	blanchardi
Tubificida	Tubificidae	Tubifex	tubifex
Squamata	Teiidae	Tupinambis	teguixin

Passeriformes	Turdidae	Turdus	albicollis
Passeriformes	Turdidae	Turdus	rufiventris
Cetacea	Delphinidae	Tursiops	truncatus
Perciformes	Cichlidae	Uaru	amphiacanthoides
Squamata	Iguanidae	Uma	notata
Squamata	Iguanidae	Uma	scoparia
Esociformes	Umbridae	Umbra	limi
Esociformes	Umbridae	Umbra	pygmaea
Siluriformes	Loricariidae	Upsilon	sp.
Chiroptera	Phyllostomidae	Uroderma	bilobatum
Chiroptera	Phyllostomidae	Uroderma	magnirostrum
Squamata	Iguanidae	Urosaurus	graciosus
Squamata	Iguanidae	Urosaurus	ornatus
Squamata	Phrynosomatidae	Uta	stansburiana
Orthoptera	Tettigoniidae	Uvarovistia	satunini
Chiroptera	Phyllostomidae	Vampyressa	thyone
Chiroptera	Phyllostomidae	Vampyriscus	bidens
Chiroptera	Phyllostomidae	Vampyriscus	brocki
Chiroptera	Phyllostomidae	Vampyrodes	caraccioli
Chiroptera	Phyllostomidae	Vampyrum	spectrum
Squamata	Varanidae	Varanus	exanthematicus
Squamata	Varanidae	Varanus	komodoensis
Squamata	Varanidae	Varanus	niloticus
Squamata	Varanidae	Varanus	salvator
Veneroida	Veneridae	Venerupis	aurea
Veneroida	Veneridae	Venerupis	corrugata
Veneroida	Veneridae	Venus	casina
Cardiida	Veneridae	Venus	verrucosa
Artiodactyla	Camellidae	Vicugna	pacos
Cypriniformes	Cyprinidae	Vimba	elongata
Cypriniformes	Cyprinidae	Vimba	melanops
Cypriniformes	Cyprinidae	Vimba	vimba
Araneae	Ctenidae	Viracucha	andicola
Carnivora	Canidae	Vulpes	vulpes
Orthoptera	Morabidae	Warramaba	picta
Orthoptera	Morabidae	Warramaba	virgo
Squamata	Xenodermatidae	Xenodermus	javanicus
Anura	Pipidae	Xenopus	epitropicalis
Anura	Pipidae	Xenopus	laevis
Anura	Pipidae	Xenopus	mellotropicalis
Mytiloidea	Mytilidae	Xenostrobus	securis
Orthoptera	Romaleidae	Xestotrachelus	robustus
Cypriniformes	Poeciliidae	Xiphophorus	maculatus
Orthoptera	Romaleidae	Xyleus	discoideus
Scorpiones	Buthidae	Zabius	fuscus
Coleoptera	Carabidae	Zabrus	ambiguus
Coleoptera	Carabidae	Zabrus	angustatus
Coleoptera	Carabidae	Zabrus	castroi
Coleoptera	Carabidae	Zabrus	coiffaiti
Coleoptera	Carabidae	Zabrus	curtus

Coleoptera	Carabidae	Zabrus	curtus
Coleoptera	Carabidae	Zabrus	eserensis
Coleoptera	Carabidae	Zabrus	ignavus
Coleoptera	Carabidae	Zabrus	marginicollis
Coleoptera	Carabidae	Zabrus	obesus
Coleoptera	Carabidae	Zabrus	pecoudi
Coleoptera	Carabidae	Zabrus	rotundatus
Coleoptera	Carabidae	Zabrus	seidlitzii
Coleoptera	Carabidae	Zabrus	seidlitzii
Coleoptera	Carabidae	Zabrus	seidlitzii
Coleoptera	Carabidae	Zabrus	silphoides
Coleoptera	Carabidae	Zabrus	theveneti
Coleoptera	Carabidae	Zabrus	urbionensis
Coleoptera	Carabidae	Zabrus	vasconicus
Hemiptera	Coreidae	Zicca	anuulata
Hemiptera	Coreidae	Zicca	nigropunctata
Orthoptera	Pyrgomorphidae	Zonocerus	elegans
Hemiptera	Issidae	Zopherisca	penelopae
Hemiptera	Issidae	Zopherisca	tendinosa
Siluriformes	Pimelodidae	Zungaro	zungaro

NA, m (metacentrický), sm (submetacentrický), a (akrocentrický), t (telocentrický), st (subtelocentrický)

Intraspecific category	Specific authority	2n average	2n range	oidy lev y level r	2C average
	Walker	23.5	23-24	2	
	De Geer	23.5	23-24	2	
	Bloch	48		2	1.58
	L.	48		2	2
	Lacepede	48		2	1.4
	Quoy & Gaimard	48		2	
	Stal	19.5	19-20	2	
	Villers	18		2	
	Dumeril & Bibron	38		2	
	Bleeker	52		2	
	Bleeker	52		2	2.06
	Heckel	50		2	
	Olivier	37		2	
	Brandt	249	249±5	2	2/4 8.3
	Mitchill	121	121±3	2	
	L.	116	116±4	2	3.74
	Pallas	146	146±6	2	4.7
	L.	116	116±4	2	5.56
	J. Richardson	262	262±6	2	2/4 9.84
	Hornstedt	34		2	
	F. Smith	38		2	
	Fabricius	28.5	19-38	2	
	Mayr	38		2	
	Smith	38		2	
	Roger	22		2	
ssp. molestans	Forel	38		2	
	Azam	23		2	
	Fieber	23		2	
	Mordwilko	7.5		2	0.62
	E. A. Smith	38		2	
ssp. formosus	Muller	26		2	
	L.	6		2	1.03
	Heckel	48		2	
	P. Fischer	26		2	
	L.	21		2	
	Fieber	27.5	27-28	2	
	Olivier	27.5	27-28	2	
	L.	55	54-56	2	
	L.	36		2	2.74
	F. Werner	36		2	
	Lacepede	36		2	
	Bancroft	48		2	
	Horvath	14		2	
		40		2	
	Bleeker	44		2	1.9
	L.	33.5	33-34	2	
	Chabanaud	34		2	
	L.	40		2	
	Latreille	23.5	23-24	2	

	Fabricius	23.5	23-24	2		
	Thomas	25.5	24-27	2		
	Rafinesque	50		2		3.38
	Fallen	23.5	23-24	2		
	La Quesne	23.5	23-24	2		
	Rey	23.5	23-24	2		
	Boheman	23.5	23-24	2		
	L.	49	48-50	3		
	Stal	25.5	25-26	2		
	Laurenti	38		2		17.78
	Fabricius	20		2		
	Stal	23.5	23-24	2		
	L.	50		2		2.04
	Cocteau	30		2		
	L.	46		2		2.42
	David	26		2		
	Swainson	46		2		
	L.	23		2		
	Steindachner	50		2		2.48
	Wiedemann	11		2		
	Bifi, Pavanelli & Zawadzki	48		2		
	Valenciennes	50		2		
	Knaack	54		2		
	Knaack	34		2		
cf. dubius	Eigenmann & Eigenmann	42		2		
	Kner	42		2		3.6
	Miranda Ribeiro	50		2		
	L.	24		2		
	Vachon	24		2		
	Olivier	24		2		
	Lourenço	24		2		
	L.	38		2		2.78
	Fabricius	27		2		
	Voigt	36		2		4.67
	Cope	28		2		
	Gray	35	34-36	2		
	Gray	30		2		5.28
	Guerin-Meneville	98		2		2
	Fabricius	14		2		
	Le Conte	46		2		5.34
	Lesueur	66		2		5.4
	Miranda-Ribeiro	24		2		
	Eigenmann	54		2		
	Eigenmann	54		2		
	Valenciennes	48		2		
	Hopper & Woolley	10		2	1-2	0.9
	L.	32	16-32	2	1-2	0.44
	Pallas	48	48+Bs	2		6.22
	Temminck	46	46+Bs	2		
	Thomas	48		2		

	Thomas	48	48+Bs	2	
	Thomas	48		2	
	Temminck	47	46-48	2	
	L.	48	48+Bs	2	6.7
	L.	24		2	1.42
	de Santana	26		2	
	Schinz	56		2	1.8
	L.	62		2	
ssp. irradians	Lamarck	32		2	2.4
	Lamarck	32		2	2.2
	Bleeker	48		2	
	Asso	48		2	
	Eastman & Eakin	46		2	
	Regan	46		2	
	Waite	46		2	
	Lonnberg	46		2	
	Gervais	30		2	4.88
	Gray	30		2	
	Gray	30.5	30-31	2	
	Davis & Leach	30.5	30-31	2	5.3
	Olfers	30.5	30-31	2	5.28
	Wied-Neuwied	56		2	4.88
	Spix	56		2	
	De Geer	14		2	
	Stejneger	46		2	8.22
	Fischer von Waldheim	18		2	
	Diesing	12		2	
	Valenciennes	56		2	
	L.	176		2	
	Eschscholtz	180		2	
	Gunther	40		2	
	Regan	42	40-44	2	
	Agassiz	48		2	2.18
	Latham	68		2	
	Jenyns	50		2	
	Garutti & Britski, 2000	50		2	
	Garutti	50		2	
	Gery	50		2	1.19
	Garutti & Britski	50		2	2.82
	Vari & Castro	50		2	
	Holmberg	36		2	
	Cope	48		2	
	Bertaco & Lucinda	50		2	
	Cuvier	46.5	45-48	2	3.12
	Eigenmann	50		2	
	Eigenmann	50			
	Eigenmann	50		2	
	Cope	50		2	
	Eigenmann	50		2	
	Lutken	50		2	

	Eigenmann	48		2	
	De Filippi	50		2	
	Eigenmann	48		2	
	Eigenmann	50		2	
	Eigenmann	50		2	
	Jenyns	48	46-50	2	3.74
	Britski	36		2	
	Garutti & Venere	50		2	
	Audinet-Serville	16		2	
	Stal	21.5	21-22	2	
	Quoy & Gaimard	48		2	
	Mochulsky	19.5	19-20	2	
	T. N. Gill	56		2	
	Forel	22		2	
	F. Smith	22		2	
	Borgmeier	22		2	
	L.	22		2	
	Gunther	48		2	
	Rican, Pialek, Almiron & Cascio	48		2	
	Jenyns	48		2	
	Lereboullet	176	164-180	2	
	Schrank	176	164-184	2	
	Cantrell	30		2	
	L.	38		2	
	Roberts	56		2	
	Peters	32		2	
	L.	50		2	1.08
	Rapp Py-Daniel, Zuanon & R. R. de O	52		2	
	Valenciannes	48		2	
	Bleeker	48		2	
	Cervigon	46		2	
	Montandon	16		2	
	De Carlo	24		2	
	Mayr	29		2	1.93
	Dufour	30		2	
	Montandon	29		2	
	Montandon	29		2	
	Montandon	16		2	
	Latreille	30		2	
	Heckel	48		2	
	L.	60		2	
	L.	60		2	
ssp. amarali	Stull	42.5	33-52	2	4.62
ssp. constrictor	L.	42.5	33-52	2	4.62
ssp. occidentalis	Philippi	42.5	33-52	2	4.62
	Germar	21		2	
	L.	24		2	16.7
	L.	28		2	0.53
	d'Alton	60		2	
	Smith	58		2	

ssp. indicus	L.	60		2	6.62	
	L.	60		2	7.8	
	Pallas	46		2		
	L.	38		2		
	Agassiz	32		2		
	Spix & Agassiz	36		2		
	Boulenger	36		2		
	G. Cuvier	36		2		
	Valenciannes	36		2		
	Carmichael	48		2		
	Richardson	48		2		
	Raw	34		2		
	Sauaia & Alves	7.5	7-8	2	0.62	
	L.	30		2		
	J. F. Gmelin	32		2		
	d'Orbigny	32		2		
	Lichtenstein	56		2		
	Rehn	23.5	23-24	2		
	Boettger	36		2		
	Spix & Agassiz	50		2		
	Muller & Troschel	50		2		
	Gunther	50		2		
	Steindachner	50		2		
	Gunther	50		2		
	Valenciennes	50		2	2.4	
	Valenciennes	50		2		
	J. F. P. da Silva	52		2		
	aff. iheringii	Boulenger	52		2	
		Boulenger	52		2	
		C. H. Eigenmann	52		2	
		Eigenmann	52		2	3.28
	Z. M. S. de Lucena, Pedrini & Tarelho	52		2		
ssp. bubalis	L.	50		2		
ssp. kerebau	Fitzinger	48		2		
	L.	20		2		
	Seebohm	82		2		
	L.	80		2		
	Laurenti	22		2	13.58	
	Tandy, Tandy, Keith & Duff-Mac	20		2		
	S. O. Kullander	50		2		
	Cope	42		2		
	Latham	68		2		
	Maupas	11.5		2	0.18	
	L.	42		2	5.7	
	L.	56		2	2.9	
	O.G. Costa	23.5	23-24	3		
	Pantel	23.5	23-24	4		
	Blainville	34		2		
	Kuhl	36		2		
Gunther	32		2			

cf. crypticum	Raxworthy & Nussbaum	32		2			
	Gunther	36		2			
	Gunther	36		2			
	Cuvier	36		2			
	Olfers	14		2			
	L.	14		2			
	Mayr	40		2			
	Emery	40		2		0.58	
	Fabricius	40	38-40	2		0.58	
	ssp. familiaris	L.	78		2		6.34
Moura & Castro		36		2			
Pereira		18		2			
Steindachner		50		2			
Cuvier		48		2			
Agassiz		48		2		1.22	
Poey		48		2			
ssp. gibelio		Bloch	159	156-162	2	2/3/4	4.9
		L.	100		2	2/3	4.16
		L.	100		2		4.02
	Ramsay	68		2			
	Allen	22		2		5.8	
	L.	20.5	20-21	2		5.7	
	Hahn	20.5	20- 21	2			
	Latreille	57		2			
	Schneider	20		2			
	L.	92		2			
ssp. gibelio	Gunther	40		2			
	L.	80		2			
	Cassin	80		2			
	Agassiz	56		2			
	Hamilton	50		2			
	Giglio-Tos	24		2			
		64		2			
	L.	64		2		7.86	
	Stal	23.5	23-24	2			
	Bocourt	48		2			
	Bloch	48		2			
	Burgess	48		2			
	Randall & Burgess	48		2			
	Gray	28		2		5.46	
	L.	38		2		2.74	
	Bruguiere	18		2			
	Temminck	68		2			
	Schubart & A. L. Gomes	58		2		1.78	
	Fabricius	23	22-24	2			
	Fabricius	23	22-24	2			
Kullander & Ferreira	48		2				
Agassiz	48		2				
Kullander & Ferreira	48		2				
Kullander	48		2				

	L.	29		2	
	L.	28		2	0.4
	Hamilton	50		2	
	Gunther	27	26-28	2	
	L.	104		2	2.12
	Burchell	56		2	2.4
	Gunther	54		2	
	da Costa	38		2	
	Baird & Girard	46		2	
	Wagler	46		2	
	L.	48		3	
	L.	48		2	2-3 3.55
	Karaman	50		2	
	Vieillot	84		2	
	Gmelin	84		2	
	Baird	32		2	2.84
	L.	62		2	
	J. P. Muller & Troschel	46		2	
	G. Cuvier	54		2	3
	Bolivar	24		2	
	L.	38		2	3.32
	L.	32		2	
	Troschel	34		2	
	Host	14		2	
	Olsoufieff	20		2	
	Germar	20		2	
	L.	42.5	33-52	2	
	L.	80		2	
	Lesueur	80		2	6.5
	Schulz & Freyhof	80		2	
	L.	80		2	
	Gmelin	76		2	
	Jordan & Evermann	80		2	5.26
	L.	48		2	2.42
	Wagner	22		2	
	Nijssen & Isbrucker	90		2	
	Nijssen & Isbrucker	46		2	
	Steindachner	44		2	
	Tencatt, M. R. Britto & Pavane	58		2	
aff. paleatus	L. Jenyns	44		2	
	L.	47.5	47-48	2	
	L.	48		2	1.22
	Temminck & Schlegel	78		2	
	Lamarck	20		2	
	Fujita in Wakiya	20		2	
	Thunberg	20		2	1.82
		20		2	
	Guilding	20		2	
	Gmelin	20		2	1.38
	Heckel	48		2	

	Milne-Edwards	22		2		3.52
	Krefft	32		2		
	Schneider	32		2		
	Baird & Girard	36		2		
	Rafinesque	36		2		
	Say	36		2		4.76
	Dollo	48		2		3.86
	Regan	48		2		
	Dejean	37		2		
	Jordan & Gilbert	44		2		
	Valenciennes	48		2		
	Keyserling	28		2		
	L.	50		2		
	Saussure	15	14-16	2		
	L.	56		2		
	Waite	46	44-48	2		2.82
	Gunther	42		2		1.24
	Fernandez-Yepe	54		2		3.2
	Fernandez-Yepe	54		2		3.2
	Meinken	54		2		
	Vari	54		2		
	Hensel	54		2		
	Joseph	28		2		
	L.	100		2	2-4	3.64
	L.	40		2		
	Delaroche	46		2		
	F. Hamilton	50		2		3.96
	Gmelin	30		2		
	L.	18		2		
	Bates	14		2		
	Castelnau	20		2		
aff. morbillosum	Burmeister	14		2		
	Felsche	20		2		
	Mueller	14		2		2.4
	Wied-Neuwied	30		2		
	Perets	30		2		
	Perets	30		2		
	Cochran	30		2		
	Stal	19		2		
	Cavichioli & Sakakibara	19		2		
	Fabricius	19		2		
	K. Andersen	30.5	30- 31	2		
	Miller	30		2		5.7
	Saussure	30.5	30- 31	2		5.42
	Thunberg	24.5	24-25	2		
	E. Geoffroy	28		2		5.07
	Gomes	50		2		
	L.	20		2		
	Miller	32		2		
	Ranzani	48		2		

	Cuvier	48		2	
	L.	48		2	1.56
	Bloch	48		2	
	Schrank	14		2	
	Fabricius	14		2	
	Herrich-Schaeffer	14		2	
	L.	22		2	7.11
	Falbricius	20		2	
	Dejean	37		2	
	Felsche	18		2	
	Blanchard	18		2	
	Germar	18		2	
	Harold	18		2	
	Arrow	18		2	
	Felsche	18		2	
	Ljungh	18		2	
aff. mundus	Harold	18		2	
	Olivier	18		2	
	Germar	18		2	
	Curtis	18		2	
aff. sericeus	Harold	18		2	
	Hope	18		2	
	Giglio-Tos	23.5	23-24	2	
	Giglio-Tos	23.5	23-24	2	
	Thunberg	23.5	23-24	2	
	Ronderos	23.5	23-24	2	
	Bruner	24		2	
	Uhler	22		2	2.58
	Spix	32		2	
	L.	48		2	1.16
	L.	18		2	
	Baird & Girard	36		2	
	Otth	28		2	10.26
	Smitt	48		2	
	Norman	48		2	2.4
	Fabricius	16		2	
	Fabricius	59		2	
	Kurdjumov	9.5	9-10	2	1.78
	Audinet-Serville	69		2	
	Rossi	45		2	
	Olivier	55		2	
	Soltani	18		2	
	Thunberg	27		2	
	L.	38		2	
	da Costa	38		2	
	L.	38		2	
	L.	38		2	
	Latham	80		2	3.18
	Sturtevant	8		2	
	Meigen	8		2	0.33

	De Geer	14		2	
	Blote	14		2	
	L.	14		2	
	Holly	46		2	1.86
	Brunner von Wattenwyl	29.5	29-30	2	
	Bergroth	14		2	
	Fabricius	14		2	
	De Geer	14		2	
	Dejean	39		2	
	Guerin-Meneville	37		2	
	J. N. Ahl	42		2	
	Jordan & Evermann	34		2	
	Jordan & Evermann	38		2	
aff. trilineata	Lopez & Castello	31.5	31-32	2	
	Valenciennes	38		2	
	Savigny	22		2	1.4
	Pelzel	80		2	
	L.	36		2	
	Say	36		2	4.35
	Cuvier	48		2	
	Gray	50		2	
	De Geer	9.5		2	
	Donoso-Barros	22		2	
	Jimenez de la Espada	22		2	
	Amyot & Serville	19		2	
		22		2	
	Philip Bertkau	28		2	
	Jeffreys	38		2	15.4
	T. A. Conrad	38		2	3
	Chenu	38		2	
	L.	38		2	16
	Gerstaecker	27		2	
	Wrase	41		2	
	Guenee	60		2	
	Machado	36		2	
	L.	36		2	2.66
	Cope	36		2	
	Temminck & Schlegel	48		2	
	Hamilton	48		2	
	Lichtenstein	48		2	
	Lowe	48		2	
	Sundevall	36		2	
	Beauvois	50		2	4.68
	L.	64		2	6.44
	Stal	22		2	2.52
	Saussure	19.5	19-20	2	
		48		2	
	Smith	36		2	9.4
	Bloch & Schneider	52.5	51-54	2	
	Lilljeborg	44		2	

	Bianco & Delmastro	50		2	
	L.	50		2	2.25
	Bloch	46		2	
	Jordan & Gilbert	38		2	
	Baird & Girard	48		2	
	Quoy & Gaimard	48		2	1.26
	Bleeker	48		2	
	I. Geoffroy Saint-Hilaire	80		2	2.48
cf. nigripes	Chopard	29		2	
cf. powysi	Kirby	29		2	
	Gerstaecker	29		2	
	Cuvier	48		2	
	Lucas	17.5	17-18	2	
spp. koebelei	Rehn	24		2	
	Rambur	19.5	19-20+B	2	
	Wagner	39	38-40	2	
	L.	42.5	33-52	2	3.44
	Cope	42.5	33-52	2	
	Ramme	31		2	
	Ramme	31		2	
	Salman	31		2	
	Ramme	31		2	
	Ramme	31		2	
	Salman	31		2	
	Fieber	31		2	
	Brunner von Wattenwyl	31		2	
	Uvarov	31		2	
	Hussey	13.5	13-14	2	
	Herbst	8		2	
	Fabricius	10		2	
	Mayr	14		2	
	Fabricius	12		2	
	Dallas	14		2	
	Fabricius	14		2	
	Charpentier	23.5	23-24	2	19.4
	Tarbinsky	23.5	23-24	2	
	L.	20		2	
	L.	70		2	
	Bassi	22		2	
	Signoret	19		2	
	Mocquard	22		2	
	Cuvier	21.5	21-22	2	
	L.	46		2	1.34
	Herrich-Schaeffer	14		2	
	L.	80		2	2.5
	Baird & Girard	36		2	
	Ashmead	18		2	
	Pope	38		2	
	Cuvier	46		2	
	Quoy & Gaimard	48		2	

	Castelnau	48		2	
	Boulenger	44		2	
	Lamarck	32		2	
	Thomas	18		2	
	Newstead			2	
	Newstead			2	
ssp. fuscipes	Newstead	6		2	1
ssp. submorsitans	Newstead	8	7-9	2	
	Austen	6		2	0.94
ssp. palpalis	Robineau-Desvoidy			2	0.88
	Westwood			2	
	Pallas	32		2	5.12
	Uvarov	19		2	
	Uvarov	18		2	
	Unal	18		2	
ssp. pukhripes	Werner	18		2	
	Le Conte	50		2	
	Stæger	4		2	
	Gunther	49	48-50	2	
	Lonnberg	46		2	
	Gunther	50		2	
	L.	52		2	2.02
ssp. beringei	Savage	48		2	7.68
	Thomas	14		2	
	Fabricius	15.5	15-16	2	
	Kaup	36		2	
	T. L. Tchang, T. H. Yueh & H. C. Hsiao	92		2	
	Tsao, C. Z. Wu, Chen & Zhu	92		2	
	Boulenger	48		2	
	Reis, Malabarba & Pavanelli	48		2	
	G. Shaw	42		2	
	McLeay	20		2	
	E. T. Bennett	42		2	
	Ruppell	36		2	
	Bleeker	40		2	
	Hamilton	42		2	
	Lacepede	42		2	
	Campos-da-Paz & Costa	36.5	36-37	2	
	L.	54		2	1.98
	La Monte	50		2	
	Valenciennes	54		2	
Fernandes, Albert, Daniel-Silva, Lopes, Crampton		39.5	39-40		
	Steindachner	52		2	
	Albert & Crampton	54		2	
	Albert & Fernandes-Matioli	40		2	
	L.	26		2	
	Cuvier	48		2	
	Cuvier	48		2	
	Lacepede	48		2	
	Bloch	48		2	

	Starks	48		2	
	Steindachner	49		2	
	L.	50		2	
	Ino	36		2	
	Bloch & Schneider	46		2	
	Snoeks	44		2	
	Stal	13.5	13-14	2	
	Schrank	37		2	
	Duftschnid	37		2	
	Dejean	37		2	
	Dejean	37		2	
	Duftschnid	37		2	
	Sturm	37		2	
	Duftschnid	37		2	
ssp. salinator	Motschulsky	37		2	
	K. Daniel & J. Daniel				
	Duftschnid	37		2	
	Sturm	30		2	
	Quensel	37		2	
	Latreille				
	Schauberger	30		2	
	Miranda Ribeiro	52.5	52-53	2	
	Oyakawa	58		2	
	Miranda Ribeiro	58		2	
	Langeani, Oyakawa & Montoya-B	58		2	
	Steindachner	56		2	
	Rapp Py-Daniel & Oliveira	58		2	
	Oyakawa	56		2	
	Lutken	50		2	
	Kindle	58		2	
	Fang & Chaux	58		2	
	Valenciennes	58		2	
	Bleeker	62		2	
	Fang & Chaux	58		2	
	Gill	44		2	
	Schaum	27.5	27-28	2	
	Garman	50		2	
	Geoffroy	18		2	
	Bloch			2	
	Heckel	48		2	
	Redtenbacher	23.5	23-24	5	12.68
	L.	27		2	
	Rafinesque	38		2	
	G. Cuvier	48		2	1.46
	Regan	46		2	
	Cope	34		2	
	Girard	34		2	
	Baird & Girard	34		2	
	Fabricius	27.5	27-28	2	
	L.	46		2	7

	Heckel	48		2	
	Spix & Agassiz	50	48-52	2	
	Valenciennes			2	
	Miranda Ribeiro			2	
	Bloch	40		2	2.56
	Hancock	60		2	1.36
	Coquebert	21		2	
	L.	82		2	
	Brevoort	62		2	
	L.	116	118±4	2	3.273
	L.	44		2	6.2
	Mori	56		2	
	Abe	56		2	32.96
cf. debilitata	Armbuster, Lujan & Taphorn	52		2	
	Isbrucker & Nijssen	52		2	
	C. H. Eigenmann	50		2	
	Boulenger	50		2	
	Bertaco, Malabarba & Dergar	50		2	
	Gunther	38		2	
	Steindachner	66		2	
	Regan	74		2	
	Ihering	68		2	3.18
	Kner	64		2	
	Valenciennes	68		2	
	Zawadzki, Birindelli & Lima	64		2	
aff. hermanni	Ihering	72		2	
	Ihering	72		2	
	R. E. dos Reis, C. Weber & L. R. Mal	76		2	
	Devincenzi	72		2	
	Godoy	74		2	
aff. paulinus	Ihering	75	74-76	2	
	Ihering	75	74-76	2	
cf. plecostomus	L.	68		2	3.68
	L.	68		2	3.68
	Ihering	72		2	
	Regan	73	72-74	2	
	Godoy	80		2	
	Heckel	42		2	
	Gunther	48		2	
	De Geer	19.5	19-20	2	
	Hahn	19.5	19-20	2	
	Spix	24		2	
	Spix	24		2	
	Heckel	48		2	
	Broussonet	48		2	1.86
	Bloch	48		2	
	L.	48		2	
	Peters	36		2	
	Dumeril & Bibron	24		2	
	L.	38		2	

	da Costa	38		2	
	Lonnberg	48		2	
	Hamilton	104		2	1.94
	Cuvier	48		2	
	Cuvier	44		2	
	Bloch & Schneider	32		2	1.32
	Bloch	43.5	43-44	2	1.46
	Richardson	48		2	
	Travassos	50		2	
cf. gomesi	Travassos	50		2	
	Travassos	50		2	
		50		2	
	A. L. Gomes	50		2	
		50		2	
	J. T. Reinhardt	50		2	
	J. T. Reinhardt	50		2	
	J. T. Reinhardt	50		2	
	J. T. Reinhardt	50		2	
	J. T. Reinhardt	50		2	
	Melo & Buckup	50		2	
	Cope	50		2	
	Travassos	50		2	
		50		2	
aff. vidali		50		2	
	Travassos	50		2	
	da Graca, Pavanelli & Buckuř	50		2	
cf. zebra	C. H. Eigenmann	50		2	2/3
	Olivier	22		2	
	Fabricius	22		2	
	Thunberg	25.5	25-26	2	
	Gray	54		2	
	L.	52		2	2.6
	Fabricius	22		2	
	Boheman	22		2	
	Bennett	62		2	7.92
	Lonnberg	48		2	3.66
	Dobson	26		2	
	Peters	26		2	5.34
	Schobanov & Djomin	8		2	
	Strenzke	8		2	
	Devai, Wuelker & Scholl	8		2	
	Kerkis, Filippova, Shobanov, Gunderina	8		2	
	Meigen	8		2	
	Shobanov, Kiknadze & Butler	8		2	
	Meigen	8		2	
	Schobanov	8		2	
	Wuelker	8		2	
	Strenzke	8		2	
	Keyl	8		2	
	Ryser, Scholl & Wuelker	8		2	

Keyl	8		2	
Ryser, Scholl & Wuelker	6		2	
Beermann	8		2	
L.	8		2	
Strenzke	8		2	
Meigen	8		2	0.4
Shilova	8		2	
Wuelker	8		2	
Fabricius	8		2	0.46
Midge				
Jones & Preston	38		2	
Thomas	20		2	
Tschudi	16		2	4.7
Herrich-Schäffer	17.5	17-18	2	25.22
L.	17		2	
Charpentier	17.5	17-18	2	21.82
Thunberg	18		2	
Zetterstedt	18		2	
Ramme	17		2	
Hartz	17		2	21.68
Fischer	18		2	
Pascual	17.5	17-18	2	23.6
Zetterstedt	17		2	27
Eversmann	17		2	17.32
Gerstaecker	23.5	23-24	2	
Thunberg	23.5	23-24	2	
Gunther	39		2	
Cuvier	46.5	46-47	2	
Schneider	50		2	2.9
Collares-Pereira	50		2	
Boulenger	36		2	
Rafinesque	58	58±B	2	2.05
L.	36		2	5.78
Lutken	56		2	
Kriechbaumer	24		2	
Gunther	54		2	
	58		2	
	58		2	
Gomes	58		2	2.06
L.	62		2	
Germar	18		2	
Bey-Bienko	31.5	31-32	2	
Brunner von Wattenwyl	31.5	31-32	2	
Peshev	31.5	31-32	2	
Miram	31.5	31-32	2	
Karabag	31.5	31-32	2	
Frivaldsky	31.5	31-32	2	
Peshev	31.5	31-32	2	
Fieber	31.5	31-32	2	
Peshev	31.5	31-32	2	

	Saussure	31.5	31-32	2	
	Brunner von Wattenwyl	31.5	31-32	2	
ssp. adamovici	Peshev	31.5	31-32	2	
ssp. longicaudata	Ramme	31.5	31-32	2	
	Brunner von Wattenwyl	31.5	31-32	2	
	Peshev	31.5	31-32	2	
	Brunner von Wattenwyl	31.5	31-32	2	
	Ramme	31.5	31-32	2	
	Brunner von Wattenwyl	31.5	31-32	2	
	Brunner von Wattenwyl	31.5	31-32	2	
	Maran	31.5	31-32	2	
	Peshev	31.5	31-32	2	
	Brunner von Wattenwyl	31.5	31-32	2	
ssp. leonorae	Kaltenbach	31.5	31-32	2	
ssp. petkovi	Peshev	31.5	31-32	2	
ssp. rhodopensis	Ramme	31.5	31-32	2	
	Sevgili	31.5	31-32	2	
	Brunner von Wattenwyl	31.5	31-32	2	
	Frivaldsky	31.5	31-32	2	
ssp. obenbergeri	Maran	31.5	31-32	2	
ssp. stenocauda	Ramme	31.5	31-32	2	
	Fieber	31.5	31-32	2	
	Ramme	31.5	31-32	2	
	Brunner von Wattenwyl	31.5	31-32	2	
	Karabag	31.5	31-32	2	
	Pavicevic	31.5	31-32	2	
	Unal	31.5	31-32	2	
	Miram	31.5	31-32	2	
	Ahrens	27.5	27-28	2	
	Dumeril & Bibron	24		2	
	Spix	50		2	3.1
	Cope	50		2	2.64
	Dlabola	27.5	27-28	2	
	Lutzmann & Necas	36		2	
	Boulenger	36		2	
	Nichols	54		2	
	Hamilton	50		2	
	Fryer	44		2	
	Kner	54		2	
	Heckel	44		2	
	F.	17.5	17-18	2	
	Muller	74		2	6.42
	Vladykov	164		2	
	Jenkins, Kilpatrick, Robinson, Tim	40	38-42	2	
	Blanchard	7.5	7-8	2	
	Laporte	7.5	7-8	2	
	J. Richardson	48		2	
	Bleeker	48		2	
	Germar	14		2	
	Le Conte	20		2	4.44

	Beauvois	28		2	4.74
	Valenciennes	48		2	
	Chaudoir	37		2	
	Kessler	50		2	2.4
	Gray	34		2	
	Cope	30		2	
ssp. belliana	Hardwicke & Gray	36		2	3.4
	Darevsky & Kupriyanova	34		2	
ssp. rubritaeniata	Gray	36		2	4.4
	A.M.C. Dumeril & Bibron	44		2	2/3
	Lonnberg	48		2	
	Gunther	48		2	
	Lonnberg	28		2	
	Gunther	48		2	
	Winchell	58		2	2.84
	L.	56		2	
	Valenciennes	54		2	
	Steindachner	54		2	
	Valenciennes	54		2	2.94
	Bloch	54		2	
	Bloch	54		2	2.58
	Valenciennes	54		2	2.84
	Garavello	54		2	2.86
	Steindachner	54		2	
	Boulenger	64		2	
	Menetries	120	118-122	2	
	Williams	90		2	
	Reissinger	52		2	
	L.	69		2	
	Miranda-Ribeiro	22		2	
	Laurenti	22		2	8.94
	Steindachner	22		2	
	Heyer & Pyburn	22		2	
	Sabaj	58		2	
	Fabricius	21.5	21-22	2	
	Allen	21		2	
	Dallas	21.5	21-22	2	
	Barbotin, Carton & Keiner-Pilla	18		2	
	Thomson	20		2	
	Nordlander	20		2	
	Pantel	36		2	
	Scali	23		2	
	Brunner von Wattenwyl	31.5	31-32	2	
	Tilesius	168		2	
	L.	50		2	2.6
	L.	50		2	2.8
	L.	50		2	2.4
	Gray	33.5	33-34	2	2.51
	Boulenger	42		2	
	Miranda-Ribeiro	52		2	

Hancock	52		2	
Risso	48		2	1.58
L.	23		2	11.6
Thomas	30		2	
J. A. Allen	30		2	
Tomes	32		2	4.98
Davis & Carter	34		2	
d'Orbigny	34		2	
L.	64		2	
L.	48		2	
Walker	12		2	
Meigen	12		2	1.86
Moura & Lindeman	48		2	
Cuvier	48		2	
L.	48		2	2.4
Bloch & Schneider	48		2	
L.	48		2	
L.	47	46-48	2	
Jensen	48		2	
Collett	48		2	1.98
Reinhardt	48		2	
Jensen	48		2	
DeWitt	48		2	
Brailovsky	12		2	
	20		2	
Raffles	42		2	6.86
Zimmermann	42		2	6.74
Conrad	38		2	4.56
da Costa	38		2	
Ladurner, Schärer, Salvenmoser, &	10		2	
Schmidt	8		2	
Baird	40		2	
Gray	46		2	4.74
L.	38		2	
Stal	19		2	
Le Peletier & Serville	19		2	
Walker	19		2	
Distant	19		2	
Fabricius	19		2	
Walker	19		2	
Fabricius	21		2	
Muller	54		2	
L.	62		2	
L.	56		2	
Nielson	18		2	
Thomas	14		2	
L.	14		2	
Pine	14		2	
Tschudi	14		2	
Voss, Lim, Diaz-Nieto & Jans	14		2	

	Tate	14		2	
	Pine	14		2	
	Shaw	36		2	
	Brunner von Wattenwyl	38		2	
	W. K. H. Peters	52		2	
	Otto	64		2	
	Boulenger	44		2	
	L.	33.5	33-34	2	
	L.	80		2	3
	L.	20		2	
	De Geer	13		2	
	Frias, Henry & Gonzalez	23		2	
	Porter	23		2	
	L.	42		2	
	Waterhouse	44		2	7.42
	Heckel	48		2	
	Day	50		2	
	Thomas	26		2	
	E. Geoffroy	14		2	
	McKaye & Stauffer	44		2	
	W. E. Burgess	44		2	
	Boulenger	44		2	
	Spaeth	18		2	
	Boheman	18		2	
	Boheman	22		2	
	Boulenger	54		2	2.5
	Lacepede	46		2	1.57
aff. bilineatus	Fernandez Yopez	48		2	
	Fernandez-Yopez	48		2	
	L.	50		2	
	Gray	66		2	
	Iredale	38		2	
	Geoffroy	32		2	2.19
	Thorell	30		2	
	Cantor	50		2	2/3/4 3.7
	L.	50		2	3.2
	Steindachner	50		2	2.58
	L.	38		2	
	E. Geoffroy	48		2	
	Pallas	48		2	4.82
	Peters	34		2	
aff. adusta	Thomas	18		2	
	Erxleben	18		2	10.44
	Thomas	18		2	
	Burnett	18		2	
	Shaw	18		2	
	Leach	32		2	
	Zuiew	24		2	1.52
	Stal	14		2	
	Lichtenstein	14		2	

	Leach	38		2	
	L.	48		2	1.8
	Valenciennes	24		2	1.38
	Hancock	48		2	
	Valenciennes	48		2	
	I. J. Harrison, Nirchio, C. de Oliveira, Ro	48		2	
	T. Say	38		2	
	Zimmermann	6.5	6-7	2	4.96
	Gray	40		2	6.48
	Bonhote	40		2	6.4
	Hodgson	40		2	5.96
	Ryley	40		2	6.14
	Cucchi	40		2	
		40		2	
	Bonhote	40		2	
	Auffray	40		2	
	Thomas & Hinton	36		2	
	Nordmann	40		2	
	Thomas	36		2	
	Petrov & Ruzic	40		2	
	Petter	36		2	
	Smith	18		2	
	Temminck	18		2	
ssp. brevirostris	Waterhouse	40		2	
ssp. castaneus	Waterhouse	40		2	6.14
ssp. domesticus	Rutti	40		2	6.7
ssp. molossinus		40		2	6.16
ssp. musculus	L.	40		2	6.55
	Thomas	48		2	
	Bennett	26		2	
	Petenyi	40		2	6.14
	Lataste	40		2	7.36
	Blyth	40		2	
	Forel	8		2	
	Stal	27.5	27-28	2	
	Lutken	58		2	
	Spix & Agassiz	54		2	
	Cuvier	54		2	
	J. A. Allen	44		2	5
	Miller	44		2	
	Fowler	54		2	
	Bleeker	56		2	
	Roberts	54		2	
	Roberts	52		2	
	Conrad	28		2	3.52
	L.	26		2	3.32
	Lamarck	28		2	3.34
	d'Orbigny	28		2	
	Gould	28		2	3.2
	Sulzer	12		2	0.64

	L.	38		2	
	Smith	50		2	
	Skyes	38		2	
	Weitzman, Menezes & Britsk	50		2	
	Nybelin	48		2	
	Steindachner	54		2	
	Fabricius	21		2	
	L.	34.5	33-36	2	
	L.	36		2	
	Hallowell	36		2	4.02
	L.	58		2	3.76
	Wollaston	37		2	
	Richardson	48		2	
	Fischer von Waldheim	18		2	
	Uvarov	19		2	
	Desmarest	34		2	4.56
	L.	35.5	32-39	2	
	J. Richardson	22		2	
	Berg	15		2	
	Conrad	38		2	3.34
ssp. procyonoides	Gray	54	54 + B	4	6.54
	Lacepede	50		2	
	Rafinesque	46		2	4.38
	Denis & Schiffermuller	62		2	
	Duges	36		2	2.58
	Bloch	48		2	2.4
	Zimmermann	70		2	
	Dejean	40		2	
	Dejean	22		2	
	Dejean	35.5	35-36	2	
	Steindachner	52		2	
	Dallas	14		2	
	Tate	65	64-66	2	
	Tomes	80		2	
	Anthony	90		2	
	G. Cuvier	48		2	
	L.	23.5	23-24	2	
	Lucas	23.5	23-24	2	
	Fieber	23.5	23-24	2	
	Brailovsky	14		2	
	Cuvier	50		3	3.34
	Gunther	50		2	
	Amaral Campos	50.5	50-51	2	
	Lourenco, Nascimento & Pire	24		2	
	Serville	24.5	24-25	2	
	Chopard	17		2	
	Uvarov	17.5	17-18	2	
	Bolivar	17		2	
	Yersin	18		2	
	Bloch	54		2	

	Hamilton	42		2	
	Signoret	17		2	
	Dallas	18		2	
	Walbaum	74		2	4.26
	Brevoort	66		2	2/3 5.36
	Walbaum	59	58-60	2	4.8
	Walbaum	68		2	2/3 5.76
	Mannerheim	20		2	
	Fabricius	20		2	
	Min, Poyarkov & Vieites	78		2	
	Oshima	50		2	
	Pellegrin	50		2	
	Lutshnik	37		2	
	Fabricius	37		2	
	Dejean	37		2	
	Dejean	37		2	
ssp. hispanicus	Schauberger	37		2	
	Akesson	8		2	
ssp.labronica	Bacci & La Greca	6		2	
ssp.puerilis	Claparede & Metschnikow	8		2	
	Paxton & Akesson	10		2	
	Temminck & Schlegel	48		2	
	Gray	36		2	
	Merrem	36		2	
	Grandidier	36		2	
	Mocquard	36		2	
	Dumeril & Bibron	36		2	
	Vaira & Ferrari	22		2	
	Pereyra, Cardozo, Baldo & Bal	22		2	
	Peracca	22		2	
	Steindachner	44		2	2.42
	Trewavas	44		2	
	Peters	44		2	1.82
	L.	44		2	2.16
	Valenciannes	48		2	
	J.E. Smith	56		2	
	Hubner	60		2	
	Shaw	53	52-54	2	6.12
	Mishchenko	18		2	
	De Geer	24		2	
	C. H. Eigenmann	50		2	
	L.	44		2	
	L.	56		2	1.24
	Hubner	62		2	
	L.	54		2	5.84
	Rafinesque	30		2	
	Boulenger	48		2	4.42
	Valenciennes	48		2	
	L.	48		2	
	Kirschbaum	27.5	27-28	2	

	L.	26		2	
	Schwarz	48		2	
	Blumenbach	48		2	7.32
	Isbrucker & Schraml	52		2	
	Lujan, Hidalgo & Stewart	52		2	
	Del Ponte	23		2	
	Walker	23		2	
	Burmeister	21		2	
	Peters	46		2	1.84
	Kottelat	50		2	
	Blyth	50		2	
	Lamarck	36		2	1.44
	Thunberg	23		2	
	Gunther	48		2	
	Girard	47	46-48	2	1.42
	Valenciennes	46		2	
	Jordan	46		2	
aff. ramulosus	Juberthie	38		2	
ssp. cytripes	Uvarov	18		2	
ssp. idrisi	Karabag	18		2	
	Fischer von Waldheim	18		2	
	Ramme	18		2	
ssp. anatoliensis	Demirsoy	18		2	
ssp. tolunayi	Karabag	18		2	
	Fieber	18		2	
	Unal	18		2	
	Brunner von Wattenwyl	17		2	
cf. belen	Unal	31.5	31-32	2	
	Brunner von Wattenwyl	31.5	31-32	2	
	Uvarov	31.5	31-32	2	
	Karabag	31.5	31-32	2	
	Ramme	31.5	31-32	2	
aff. syriaca	Ramme	30	29-31	2	
	Ellis	52		2	
	de Bivort & Giribet	32		2	
	Hemp	31.5	31-32	2	
	Ragge	31.5	31-32	2	
	Hemp	31.5	31-32	2	
	L.	22		2	
	L.	58		2	
	Bizerril	54		2	
	Ramme	30.5	29-32	2	
	Brunner von Wattenwyl	31.5	31-32	2	
	La Greca & Messina	30.5	29-32	2	
ssp. chelmos	Zeuner	30.5	29-32	2	
ssp. unicolor	Willemse, F.M.H.	30.5	29-32	2	
	Willemse, F.M.H.	30.5	29-32	2	
	Ramme	30.5	29-32	2	
	Zeuner	30.5	29-32	2	
	Reinhardt	54		2	

	Kner	54		2	
	Eigenmann & Norris	54		2	
	Jeanne	37		2	
	Rambur	37		2	
	Friese	34		2	1.1
	Pedro & Camargo	34		2	
	Norman	48		2	
	Regan	48		2	
	Richardson	48		2	
	J. C. Jay	38		2	
	L.	38		2	2.84
	Fitzinger	66		2	
	Lacepede	36		2	2.05
	Fitzinger	26		3	
	Camerano	26		2	
	Pallas	26		2	
	Schweigger	26		2	
	L.	28		2	
	Baird	48		2	6.6
	J. B. Lamarck	32		2	
	Retzius	38		2	
	L.	168		2	
	Stejneger	34		2	
	Boulenger	50		2	
	Rossi	23		2	
	Zompro	70		2	
	Fabricius	20		2	
	Cruz, Feio & Nascimento	26		2	
ssp. aptera	Fabricius	30	29-31	2	
ssp. bulgarica	Maran	30	29-31	2	
ssp. karnyi	Ebner	30	29-31	2	
	Ramme	30.5	29-32	2	
ssp. maritima	Zeuner	31		2	
	Fischer	31		2	
	Herman	31		2	
	Maran	31		2	
	Fieber	31		2	
	Ramme	30	29-31	2	
	Motschulsky	31		2	
	Maran	30	29-31	2	
	Karaman	30	29-31	2	
	Keyserling	28		2	
	Bloch & Schneider	56		2	
	Harlan	34		2	4.28
	Girard	34		2	
	Gray	34		2	
	Drury	21.5	21-22	2	
	Peters	32		2	4.68
	Peixoto	22		2	
	Wied-Neuwied	24		2	

	Lutz	26		2	
	Lutz	26		2	
	Caramaschi	26		2	
	Mertens	26		2	
	Cope	26		2	
	Boulenger	26		2	
	Thomas	56		2	
	Lichtenstein	73	50-96	2	
aff. capillata	Blanchard	20		2	
	Moser	20		2	
	Wagner	32		2	5.1
	E. Geoffroy	32		2	
	Pallas	32		2	5.24
	Fitzinger	22		2	
	Steindachner	22		2	
	Horvath	14		2	
	Sen & Nalbant	50		2	
	Bănărescu & Nalbant	50		2	
	Reinhardt	52		2	2.36
	Holmberg	50		2	2.4
	Holmberg	54		2	
	L.	30		2	
	L.	50		2	
aff. avanhandavae	Eigenmann	52		2	
	Van der Stigchel	46			
	Valenciennes	46		2	1.76
cf. chagresi	Steindachner	48		2	
	Lichtenstein	58		2	
	Eigenmann	46		2	
	C. H. Eigenmann & R. S. Eigenm:	48	46-50	2	
	Lutken	46		2	
	Garavello & Shibatta	56		2	
	Lutken	54		2	
	Lacepede	56		2	2.72
	Lacepede	56		2	2.5
	F. Cuvier	30		2	5.22
	Daudin	36		2	
	Hemp	29.5	29-30	2	
	Hemp	29.5	29-30	2	
	Veron	28		2	
	Audouin & Milne-Edwards	28		2	1.78
	Thomas	30		2	
	E. Geoffroy	30		2	4.86
	Lacepede	48		2	
	L.	23	22- 24	2	33.86
	Schweigger	28		2	
	Troschel	28		2	
	Frivaldsky	31.5	31-32	2	
	Brunner von Wattenwyl	31.5	31-32	2	
	Ramme	31.5	31-32	2	

	Uvarov	31.5	31-32	2	
	Unal	31.5	31-32	2	
	Ramme	31.5	31-32	2	
	Brunner von Wattenwyl	31.5	31-32	2	
	Frivaldsky	31.5	31-32	2	
	Karabag	31.5	31-32	2	
	Karabag	31.5	31-32	2	
	Ramme	31.5	31-32	2	
	Salman	31.5	31-32	2	
	Karabag	31.5	31-32	2	
	Ramme	31.5	31-32	2	
	Ramme	31.5	31-32	2	
	Chobanov & Heller	31.5	31-32	2	
ssp. tessellatus	Fischer	31.5	31-32	2	
	Unal	31.5	31-32	2	
	Willemse	31.5	31-32	2	
	Ramme	31.5	31-32	2	
	Ramme	31.5	31-32	2	
	Naskrecki	31.5	31-32	2	
	Heller	31.5	31-32	2	
	Ramme	31.5	31-32	2	
	Pancic	31.5	31-32	2	
	Schmidt	31.5	31-32	2	
	Andreeva	31.5	31-32	2	
	Miram	31.5	31-32	2	
	Chobanov & Kaya	31.5	31-32	2	
	Karabag	31.5	31-32	2	
	Fieber	31.5	31-32	2	
ssp. proximus	Unal	31.5	31-32	2	
	Unal	31.5	31-32	2	
	Karabag	31.5	31-32	2	
	Bey-Bienko	31.5	31-32	2	
	Bolivar	31.5	31-32	2	
	Ramme	31.5	31-32	2	
	Regan	46		2	
	Ijima	14		3	
	Walbaum	120		2	4.4
	Rottemburg	90		2	
	Rottemburg	46		2	
	Boulenger	36		2	
	Cuvier	36		2	
	Muller	7.5	7-8	2	
	Rudolphii	7.5	7-8	2	
	L.	48		2	7.7
	D. S. Jordan & C. H. Gilbert	44		2	
	Cope	102		2	
	Spix & Agassiz	56		2	
	Steindachner	54		2	
	Kerr	12.5	12-13	2	
	Dollfus	12		2	

	Spix & Agassiz	54		2	
	Valenciennes	54		2	3.36
	Spix & Agassiz	54		2	
	Palisot de Beauvois	14		2	
	Lent & Jurberg	22		2	
	Caramaschi & Cruz	24		2	
	M. M. Coelho	50		2	
	Steindachner	50		2	
	Regan	50		2	
	Panzer				
	DeGeer	37		2	
	DeGeer	37		2	
	Spix & Agassiz	56		2	
	C. H. Eigenmann & R. S. Eigenm	56		2	
	Demirsoy	18		2	
	Regan	44		2	
	L.	63	62-64	2	1.38
	d'Orbigny	80		2	
	Temminck & Schlegel	48		2	
	G. Cuvier	48		2	
	L.	48		2	1.98
	Bohlen & Slechtova	50		2	
	Gundlach	38		2	
	J. P. Gosse	48		2	
	Schultze	48		2	2.22
	Holmberg	52		2	
	Charpentier	26.5	22-31	2	
	Burr	19.5	19-20	2	
aff. australis	Eigenmann & Kennedy	40		2	1.98
	Eigenmann & Kennedy	40		2	1.98
	Gunther	26		2	
		23.5	23-24	2	
		23.5	23-24	2	
	L.	48		2	
	Delaroche	98		2	7
	Fowler	96		2	6.9
	Shaw	26		2	15.64
	L.	26		2	16.64
	Boulenger	26		2	15.34
	L.	26		2	8.22
	Berkenhout	42		2	6.88
	L.	38		2	
	Castelnau	48		2	
cf. eastwardi	Lundberg & Mago-Leccia	74		2	
	Kaup	54		2	
	Quoy & Gaimard	58		2	2.8
	Lutken	56		2	
	Bruner	23.5	23-24	2	
	Giglio-Tos	23.5	23-24	2	
	Carbonell	23.5	23-24	2	

	Brunner	23.5	23-24	2	
	Matschie	22		2	
	L.	80		2	
	Spix & Agassiz	54		2	
	Bechstein	54		2	3.84
	Fowler	50		2	
	Bloch	48		2	2.12
ssp. kurumeus	Jordan & Thompson	48		2	2.8
	Moreno Mejia, Galvao & Jurbe	22		2	1.16
	Neiva & Pinto	22		2	
	Barber	22		2	1.46
	Stal	22		2	1.7
	H. Allen	34		2	5.6
	G. Cuvier	48		2	
	C. L. Koch	28		2	
	Borelli	28		2	
	Kner	54		2	
	Matschie	62		2	
	Ghazzi	64		2	
	Boulenger	46		2	
	Kner	68	66-70	2	3.2
	Langeani & de Araujo	55	54-56	2	
	Ghazzi	54		2	
	Stal	22		2	
	E. Geoffroy	36		2	4.22
	L.	38		2	
	A. Adams & Reeve	38		2	
	Gmelin	68		2	
	Courtenay	48		2	
	Temminck	26		2	6.32
	Cuvier	50		2	
	Valenciennes	50		2	2.62
	L.	58		2	5.26
	L.	80		2	6.1
	Vieillot	80		2	
	d'Orbigny & Lafresnaye	80		2	
	L.	78		2	6.62
	Suckley	78		2	
	Mitchill	84		2	2/3 6.36
	Walbaum	82			
	Walbaum	84		2	6.8
ssp. ricini	Drury	26.5	25-28	2	
	L.	48		2	2.28
	L.	80		2	
	Heckel	48	48+B	2	2.4
	S. O. Kullander & E. J. G. Ferrei	48	48+B	2	
	Baird	36		2	5.32
	Baird & Girard	40		2	
	Baird & Girard	30		2	
	Wiegmann	32		2	

	Cope in Yarrow	32		2		
	Hallowell	26		2		5.46
	Stejneger	46		2		
	Baird & Girard	22		2		4.72
	Smith	22		2		
	Stejneger	34		2		
	Lara-Gongora	34		2		
	Baird & Girard	32		2		
	Wiegmann	24		2		
	Cope	32		2		
	Bosc & Daudin in Sonnini & Latr	22		2		
	Wiegmann	34		2		
	Smith	22		2		
	J. P. Muller & Troschel	56		2		
	Wied-Neuwied	24		2		
	Bokermann	24		2		
ssp. ingrami	Thomas	40		2		
	S. Muller & Schlegel	48		2		
	W. E. Burgess	52		2		
	Isbrucker & Nijssen	52		2		
	Rafinesque	55	44-66	2	2/3	1.72
	Germar	27.5	27-28	2		
	Bloch	48		2		
	L.	62		2		11.3
	L.	72		2		12.3
	Jardine	54		2		
	Valenciennes	54		2		
	Hanko	50		2		
	L.	80		2		3.1
	Eigenmann	52		2		
	Eigenmann	52		2		
	Lutken	52		2		
	Merckx, Jegu & Santos	60		2		
	Fink & Machado-Allison	60		2		
	Valenciennes	60		2		
	Brocchi	38		2		
	Bolivar	23.5	23-24	2		
	De Geer	24		2		
	Forsskal	24		2		17.2
	Thunberg	23.5	23-24	2		
	Kottelat	50		2		
	Hamilton	50		2		
	Nichols & Pope	50.5	50-51	2		
	Bohlen, Slechtova & Udomritth	50		2		
	Bleeker	46	44-48	2		
	Vidthayanon	50		2		
	Hamilton	50		2		
	Garavello & Britski	54		2		
	Boulenger	54		2		2.98
	Spix & Agassiz	54		2		

	Kner	54		2	
	Steindachner	54		2	
	Kner	54		2	3.12
	Valenciennes	54		2	
	Westwood	62	53-71	4	
	Rafalski	52		2	
	Rafinesque	36		2	
	Knaup	42		2	
	T. Pennant	38		2	
	L.	36.5	36-37	2	5.82
	Miller	25.5	20-31	2	
	Bloch & Schneider	56		2	
	Gerstaecker	24		2	
	Karsch	24		2	
	Valenciennes	46		2	
cf. fusca	Thunberg	23.5	23-24	2	
	L.	48		2	1.9
	L. P. Schultz	66		2	
	Rambur	23		2	
	L.	23		2	
	Gilbert	46		2	
	L.	46		2	
	G. Edwards	48		2	1.38
	G. Cuvier	48		2	
	Poey	48		2	
	Hubner	62		2	
	Hernandez-Roldan, Dapporto, Dincă, Vi	62		2	
	Hoffmannsegg	62		2	
	L.	38		2	
	da Costa	38		2	
	Steindachner	50		2	2/3/4
	Gunther	75	50-100	2	
	Fischer de Waldheim	17		2	32.68
	Wiegmann	54		2	
	Cuvier in Cuvier & Valencienn	48		2	1.5
	Castelnau	48		2	
	Garavello	56		2	
	Steindachner	56		2	
	Braga et Azpelicueta	54		2	
	Fernandez-Yepe	54		2	2.86
	Brunner von Wattenwyl	18		2	
	Bolivar	17		2	
	Gene	37		2	
	Kiritshenko	14		2	
	Fabricius	14		2	
	de Santana & Crampton	52		2	
	Steindachner	32		2	
	Latreille in Sonnini & Latreille	56		2	2.65
	Walbaum	48		2	2.4
	Walbaum	48		2	

	L.	80		2	4.32
	E. Geoffroy	30		2	5.46
	Anthony	30		2	
	Zompro	44		2	
ssp. domesticus	Erxleben	38		2	6.5
	Quoy & Gaimard	46		2	
	Pellegrin	60		2	2.44
	Heckel	60		2	
	Schultz	60		2	
	Zanata & Assumpção	23		2	
	D. E. Rosen & Rumney	22		2	
	Bloch	44	42-46	2	7.8
	Sparrman	52		2	
	Risso	44		2	0.98
	I. Geoffroy	48		2	
	Vieillot	80		2	2.5
	Forsskal	64		2	13.44
	Illiger	64		2	5.78
	Temminck & Schlegel	48		2	
	Pennant	38		2	2/3 3.24
	Nylander	18		2	
	Thomas	54		2	
	Thomas	36.5	36-37	2	
	F. Cuvier	22.5	22-23	2	
	Thomas	23.5	22-25	2	
	Dobigny, Granjon, Aniskin, Ba & Vol	14.5	14-15	2	
	Pallas	31.5	31-32	2	
	Link	30		2	
	C. H. Eigenmann	58		2	
	Boulenger	58		2	
	Hamilton	42		3	0.76
	Marion de Proce	42		2	0.86
	Stal	27.5	27-28	2	
	Boulenger	48		2	
	Gunther	46		2	
	Baird & Girard	36		2	5.32
	Baird & Girard	36		2	5.32
	L.	36		2	4.92
	Houttuyn	44		2	4.72
	Fischer de Waldheim	23.5	23-24	2	
	Costa	22		2	1.66
	L.	101	100-102	2	4.3
		44		2	
	Boulenger	40		2	
	Perty	6		2	
	Maury	5.5	5-6	2	
n. sp. curupi		31.5	31-32	2	
	Pessoa	14		2	
	Lourenço	6		2	
	Kraepelin	16		2	

	Kraepelin	6		2	
	Borelli	31		2	
	Spix	16		2	4.62
	Davis & Carter	34		2	5.2
	Koopman & Williams	16		2	
	McClelland	100		2	
	Sykes	100		2	
ssp. mahanadicus	David	100		2	
	Sykes	100		2	
	McClelland	100		2	
	Hamilton	100		2	
	Hamilton	100		2	
	L.	12		2	
	Hamilton	48		2	1.44
	Thunberg & Schoepff	50		2	4.58
	L.	48		2	3.74
	L.	48		2	1.72
	Jordan et Evermann	48		2	
	Spix	30		2	4.64
	Hensel	24		2	
	Tschudi	24		2	
	L.	24		2	
	Eigenmann & Ward	56		2	
	Boulenger	46		2	
	Regan	24		2	
	Boulenger	46.5	45-48	2	
	Pappenheim	48		2	
	Boulenger	45.5	45-46	2	
	Boulenger	57.5	57-58	2	
	Regan	40	32-48	2	
	Boulenger	48		2	
	Carcavallo & Jurberg	22		2	
	Martinez, Chavez, Sossa, Aranda, Varga:	22		2	
	Neiva	22		2	
	Jurberg et al.	22		2	
	Larrousse	22		2	
	Stal	22		2	
	Verano & Galvao	22		2	
	Romana & Abalos	22		2	4.7
ssp. capitata		23		2	1.99
ssp. dimidiata	Latreille	23		2	1.99
ssp. maculipennis	Stal	23		2	1.99
	Neiva	23		2	
	Carcavallo et al.	22		2	
	Wygodzinsky & Abalos	22		2	
	Lent & Wygodzinsky	22		2	
ssp. melanosoma	Martinez, Olmedo & Carcaval	22		2	3.48
	Klug	22		2	1.27
Gonçalves, Teves-Neves, Santos-Mallet, Carbajal-		22		2	
	Carcavallo et al.	22		2	

	Carcavallo et al.	22		2	
	Stal	22		2	
	Erichson	22		2	
	Leite & Barbosa	22		2	
	Usinger	23		2	
	Usinger	21		2	1.35
	Stal	23		2	
	Del Ponte	22		2	
	Burmeister	23		2	
	Jurberg, Cunha & Rocha	22		2	
	Neiva	22		2	2.2
	Uhler	23		2	
	Correa & Espinola	22		2	
	De Geer	25		2	
	Blanchard	22		2	2.34
	Papa, Jurberg, Carcavallo, Cerqueira	22		2	
	Stal	22		2	1.12
	Pinto	22		2	
	Carcavallo et al.	22		2	
	Stal	24		2	
	Galvao, Souza & Lima	22		2	
	Lent	22		2	
	Pinto & Stouthamer	12		2	
	Lutken	54		2	
	Gosse	42		2	
	Miranda Ribeiro	42		2	
	Rafinesque	38		2	
	Fisher	24		2	
	Steindachner	24		2	
	Boulenger	36		2	
	Gray	36		2	
	Cope	52		2	
	Spix & Agassiz	52		2	
	Valenciennes	52		2	
	Garman	52		2	
	Kner	52		2	
	Malabarba	54		2	
aff. rotundatus	Jardine	54		2	
cf. signatus	Garman	52		2	
	Castelnau	52		2	
	Malabarba	52		2	
ssp. meridionalis	Boulenger	24		2	51.6
ssp. surrucura	Vieillot	82		2	
	Stoll	23.5	23-24	2	
ssp. grandis	Thunberg	23.5	23-24	2	
	Marschall	23		2	
	Uvarov	23		2	
	Vejdovský	50		2	
	O. F. Muller	50		2	2/4 6.9
	L.	36		2	4.36

	Vieillot	78		2	
	Vieillot	78		2	
	Montagu	44		2	6.3
	Heckel	46			
	Baird	34		2	
	Cope	34		2	
	Kirtland	22		2	
	DeKay	22		2	
	Miranda Ribeiro	96		2	
	Peters	38		2	5.1
	Peters	36		2	
	Hallowell	34		2	
	Baird & Girard	34		2	
	Baird & Girard	34		2	
	Uvarov	31		2	
	Thomas	21.5	21-22	2	
	Dobson	23.5	23-24	2	
	Peterson	26		2	
	Thomas	30		2	4.98
	L.	30		2	
	Bosc	40		2	4.58
	Ouwens	40		2	3.86
	L.	40		2	5.82
ssp. macromaculatus	Deraniyagala	40		2	4.11
	Gmelin	38		2	2/3
	Gmelin	38		2	
	L.	38		2	
	L.	38		2	
	L.	74		2	
	Valenciennes	50		2	
	Heckel	50		2	
	L.	50		2	
	Simon	29		2	
	L.	34		2	5.7
	Key			2	
	Key			2	7.8
	Reinhardt	32		2	
	Fischberg, Colombelli & Picar	40		4	
	Daudin	36		2	6.85
reenbaum, Gvoždik, Kelley, McLaughlin, Pauwels, Po		40		4	
	Lamarck	30		2	
	Bruner	23.5	23-24	2	
	Gunther	48		2	1.76
ssp. angulatus	Stal			2	
	Thorell	18		2	
	Rambur	59		2	
	Rambur	59		2	
	Martinez	59		2	
	Jeanne	59		2	
ssp. arragonensis	Heyden	59		2	

ssp.neglectus	Schaum	59		2
	Bolivar			2
	Csiki	47		2
	Dejean	57		2
	Audinet-Serville	59		2
	Colas	49		2
	Rambur			2
ssp. gredosanus	Jeanne	57		2
ssp. laurae	Toribio			2
ssp. seidlitzii	Schaum	57		2
	Dejean	59		2
	Chevrolet	59		2
	Jeanne	60		2
	Uhagon	63		2
	Burmeister	23.5	23-24	2
	De Geer	23		2
	Thunberg	19.5	19-20	2
	Dlabola	27.5	27-28	2
	Spinola	27.5	27-28	2
	Humboldt	56		2

ntrický), h (holocentrický), micro (mikrochromozom), sex.ch. (pohlavní chromozom)

2C range (species)	range (gen)	5S range	5S number	5S Position	int.	cen.	ter.
		5-6	5.5	stitial, pericentromeric, te	x	x	x
		4-8	6	stitial, pericentromeric, te	x	x	x
	1.4-2						
	1.4-2		2	pericentromeric		x	
	1.4-2						
	1.4-2						
			2	terminal			x
			2	interstitial	x		
1.92-2.2			2	interstitial	x		
			2	interstitial	x		
	3.2-18.64		4	terminal			x
4.38-6.72	3.2-18.64		2	interstitial	x		
	3.2-18.64		2	pericentromeric, terminal		x	x
	3.2-18.64		2	terminal			x
3.2-7.9	3.2-18.64		2	interstitial	x		
9.46-10.2	3.2-18.64		4	terminal			x
			6	terstitial, pericentromeric		x	
			4	interstitial	x		
0.81-1.25	0.73- 1.90						
			4	interstitial	x		
			4	interstitial	x		
			2	interstitial	x		
			2	pericentromeric		x	
1.88-1.9	0.9-1.16		4	pericentromeric, terminal		x	x
		10-12	11	terminal			x
			6	interstitial	x		

2.56-4.18	4.86-6.32		6	terstitial, pericentromer	x	x
			2	interstitial	x	
			4	interstitial	x	
			2	pericentromeric		x
16-19.56	13.4-19.56	7-8	7.5	terstitial, pericentromer	x	x
1.66- 2.42		13-17	15	pericentromeric		
			34	terstitial, pericentromer	x	x
1.28-2.56			2	pericentromeric		x
			28	pericentromeric, terminal	x	x
			2	terminal		x
		13-14	13.5	pericentromeric	x	
	8		terminal		x	
3.6			2	terminal		x
3.6			6	interstitial	x	
3.6			6	interstitial	x	
3.6			6	terstitial, pericentromer	x	x
			3	pericentromeric		x
			2	pericentromeric		x
2.22-3.34	2.02-3.34		2	pericentromeric		x
			4	terminal		x
3.22-6.12	2.88-6.12					
	2.88-6.12					
	2.88-6.12					
	5.28-5.46					
		2-8	2	terminal		x
			5	interstitial	x	
			2	pericentromeric		x
0.34-0.54	0.68-1.3					
	0.34-0.54					
	6.22-6.82		5	terminal		x
	6.22-6.82		2	terminal		x
	6.22-6.82		2	terminal		x

	6.22-6.82		2	terminal			x
	6.22-6.82		2	terminal			x
	6.22-6.82		2	terminal			x
6.58-6.82	6.22-6.82		2	terminal			x
			4	interstitial	x		
			4	pericentromeric		x	
1.62-1.96							
	2.2-2.4		2	interstitial	x		
	2.2-2.4		2	pericentromeric		x	
			2	pericentromeric			x
	4.56-5.48						
	4.56-5.48						
	4.56-5.48						
5.12-5.48	4.56-5.48						
5.14-5.4	4.56-5.48						
	4.56-5.48		2	interstitial, terminal	x		x
	4.56-5.48		2	interstitial	x		
			4	terminal			x
7.9-8.52		4-8	6	microchromosome	x	x	x
			15	stitial, pericentromeric, te	x	x	x
		2-4	3	stitial, pericentromeric, te	x	x	x
			4	pericentromeric		x	
	2.1-3.74		2	pericentromeric		x	
	2.1-3.74		4	pericentromeric, interstiti	x	x	
	2.1-3.74		2	pericentromeric		x	
2.1-3.54	2.1-3.74	2-4	3	pericentromeric		x	
	2.1-3.74		4	pericentromeric, terminal		x	x
			5	pericentromeric		x	
	2.1-3.74		4	terstitial, pericentromer	x	x	
	2.1-3.74		2	pericentromeric		x	
2.76-3.5	2.1-3.74	2-4	3	pericentromeric		x	
	2.1-3.74		10	interstitial, terminal	x		x
	2.1-3.74		2	interstitial	x		
	2.1-3.74		10	interstitial, terminal	x		x
	2.1-3.74						
	2.1-3.74						
	2.1-3.74		2	terstitial, pericentromer	x	x	

2.1-3.74		2			
2.1-3.74		6	interstitial, terminal	x	x
2.1-3.74		8	interstitial, terminal	x	x
2.1-3.74		4	pericentromeric, terminal		x
2.1-3.74		6	terminal		x
2.1-3.74	4-10	7	pericentromeric, terminal	x	x
2.1-3.74		4	pericentromeric	x	
2.1-3.74		2	interstitial, pericentromeric	x	x
		2	pericentromeric	x	
		2	terminal		x
2.4		2	terminal		x
0.54-0.62					
0.54-0.62					
0.54-0.62					
0.54-0.62					
		2	interstitial	x	
		2	interstitial	x	
		2	pericentromeric	x	
		2	pericentromeric	x	
		2	pericentromeric	x	
		4	terminal		x
	2-4	3	terminal		x
		4	terminal		x
3.5-6.3					
3.5-6.3					
3.5-6.3					
13.8-19.6	11.8-24.8	6	pericentromeric	x	
0.52-0.53	0.48-0.53				
	6.30-7.86				
	6.30-7.86				

	6.30-7.86							
6.3-7.86	6.30-7.86			2	terminal			x
				4	pericentromeric, terminal	x		x
				4	pericentromeric, terminal	x		x
				4	pericentromeric, terminal	x		x
				4	pericentromeric, terminal	x		x
				2	interstitial	x		
				2	interstitial	x		
				2	terminal			x
				4	interstitial	x		
				4	interstitial	x		
				4	interstitial	x		
				2	pericentromeric		x	
				2	pericentromeric		x	
				2	terminal			x
				2	interstitial	x		
				2	interstitial	x		
				4	interstitial	x		
				2	interstitial	x		
				2	interstitial	x		
				2	interstitial	x		
				6	terminal, whole arm	x	x	x
				2	terminal			
		2-8		5	terminal, whole arm	x	x	x
				2	pericentromeric		x	
				4	pericentromeric, terminal	x		x
11.64-15.5				2	terminal			x
		8-10		9	pericentromeric, terminal	x		x
0.16-0.2	0.16-0.26			2	terminal			x
5.36-6.02	5.36-7.82							
1.92-3.4		7-9		8	interstitial, terminal	x		x
		17-18		17.5	interstitial, pericentromer	x	x	
				4	interstitial, pericentromer	x	x	

	1.46-1.66		40	pericentromeric	x		
	1.46-1.66		40	pericentromeric	x		
5.6-7.08	1.46-1.66	39-40	40	pericentromeric	x		
			2	pericentromeric	x		
	0.76-0.9						
			2	pericentromeric		x	
			4	interstitial, terminal	x		x
	1.18-1.4		2	terminal			x
	1.22-1.44		2	terminal			x
	1.22-1.44	2-4	3	terminal			x
3.66-6.12		2-3	2.5	terminal			x
3.2-5.12		2-6	4	terminal			x
3.76-4.28		8-14	11	terminal			x
	4.96-6.12						
5.26-6.12	4.96-6.12		2	interstitial	x		
	4.96-6.12						
			2	pericentromeric		x	
			14	pericentromeric, terminal		x	x
6.88-8.82	6.88-8.82		6	interstitial	x		
	6.2-9.10						
			2	terminal			x
			2	terminal			x
			18	interstitial, terminal	x		x
			4	interstitial	x		
	2.74-2.8		10	terminal			x
			2	interstitial	x		
			2	interstitial	x		
			2	pericentromeric		x	
			2	pericentromeric		x	
			2	interstitial	x		

			2	pericentromeric	x		
1.84-2.4	1.84-2.4		54	terminal			x
	1.84-2.4		4	interstitial, terminal			x
	1.84-2.4		2	terminal			x
			2	interstitial	x		
			2	interstitial	x		
3.16-3.94	2.8-7.64						
	2.8-7.64	4-6	5	pericentromeric		x	
	2.8-7.64						
	2.96-3.08						
	2.96-3.08						
	3.12-4.02						
			4	pericentromeric, terminal		x	x
			2	interstitial	x		
	2.42-3.32		2	pericentromeric		x	
	5.20-7.80						
			2				
		1-2	1.5				
	5.26-7.08		2	terminal			x
	5.26-7.08		2	pericentromeric		x	
	5.26-7.08						
	5.26-7.08	4-6	5	pericentromeric		x	
	5.26-7.08		2	terminal			x
	5.26-7.08		2	interstitial	x		
	1.28-2.42		4	terminal			x
	1.2-8.8		2	interstitial	x		
	1.2-8.8		2	terminal			x
	1.2-8.8		2	pericentromeric		x	
	1.2-8.8		2	terminal			x
	1.2-8.8		2	pericentromeric		x	
			2	terminal			x
			2	terminal			x
			2	pericentromeric		x	
			4	terminal			x
	1.38-1.82						
	1.38-1.82		4	interstitial	x		
	1.38-1.82						
	1.38-1.82						
2.2	1.38-1.82		4	interstitial	x		

3.05-3.99

2.70-7.90
2.70-7.90
2.64-3.5
2.64-3.5

			6	stitial, terminal, whole	x	x	x
			2	terminal			x
			42	terminal			x
	1.62-1.8	4-6	5	pericentromeric, terminal		x	x
		2-4	3	interstitial	x		
	1.24		12	pericentromeric		x	
	3.2-3.32		2	terstitial, pericentromer	x	x	
	3.2-3.32		2	terstitial, pericentromer	x	x	
	3.2-3.32		2	pericentromeric		x	
	3.2-3.32		3	pericentromeric		x	
	3.2-3.32		2	pericentromeric		x	
3.22-4.06	1.55-2.03	2-4	3	pericentromeric, terminal		x	x
3.36-4.56	2.8-4.56		2	whole arm	x	x	x
			2	pericentromeric		x	
			2				
			2	pericentromeric		x	
			4	pericentromeric			

5.42-5.70
5.42-5.70
5.42-5.70

4.78-5.36

	6-7	6.5		pericentromeric		x	
		2		interstitial	x		

			2	interstitial	x			
1.56			2	pericentromeric		x		
1.56			2	pericentromeric			x	
6.42-7.8	6.42-8.6		2	pericentromeric			x	
			2	pericentromeric		x		
			2	pericentromeric			x	
			2	pericentromeric			x	
			2	pericentromeric			x	
			2	pericentromeric			x	
			2	pericentromeric			x	
			2	pericentromeric			x	
			2	pericentromeric			x	
			2	pericentromeric			x	
			2	pericentromeric			x	
			2	pericentromeric			x	
			2	pericentromeric			x	
			10	terstitial, pericentromer	x		x	
			4	pericentromeric			x	
			6	pericentromeric			x	
			2	pericentromeric			x	
	1.14-1.92		2	pericentromeric				
10-10.5			2	interstitial	x			
			2	whole arm		x	x	x
			4	whole arm		x	x	x
			10	pericentromeric				
			2	interstitial	x			
			2	interstitial	x			
			4	pericentromeric, terminal			x	x
			2	terminal				x
3.10-3.26								
0.24-0.42	0.24-0.8	1-3	2	interstitial	x			
0.24-0.42	0.24-0.8		2	interstitial	x			

		12	terstitial, pericentromer	x	x	
4.28-4.42	1.4-2.2 2.50-2.64 3.64-4.42 3.64-4.42	2	pericentromeric		x	
		2-3	2.5	terstitial, pericentromer	x	x
			4	pericentromeric, terminal	x	x
		2-11	6.5	terminal		x
		2	terminal		x	
2.21-3.11						
	1.5-2.6	2	pericentromeric		x	
	1.5-2.6	2	pericentromeric		x	
	1.5-2.6	2	terminal			x
	1.5-2.6	2	pericentromeric		x	
4.5-4.86	4.50-5.10					
5.9-6.96	5.90-8.24					
9.06-9.8		2	terminal			x
	2-21-22-30	16	pericentromeric		x	

	1.7-2.8	30-34	32	pericentromeric	x		
1.7-2.8	1.7-2.8	30-38	34	pericentromeric	x		
			2	interstitial	x		
0.94-1.56			2	interstitial	x		
			2	terminal			x
			2	interstitial	x		
			2	interstitial	x		
			4	interstitial	x		
	5.16-5.68	14-15	14.5	pericentromeric, terminal	x	x	
		1-2	1.5	pericentromeric	x		
		2-20	11	interstitial, pericentromeric	x		
0.8-1.86	0.8-1.86	8-12	10	pericentromeric	x		
	1.6-3.72		2	pericentromeric	x		
			2	pericentromeric	x		
			2	interstitial	x		

		2	pericentromeric		x	
		4	interstitial, terminal	x		x
		10	terstitial, pericentromer	x	x	
	1.00-1.08					
	1.00-1.08					
	1.00-1.08					
	1.00-1.08					
	1.00-1.08					
	1.00-1.08					
	1.00-1.08					
4.68-5.56	4.44-5.56					
		12	pericentromeric		x	
		2	terminal			x
		2	interstitial	x		
		2	terminal			x
7.04-8.32	0.84-2.02	2	interstitial	x		
		2	terminal			x
		2	pericentromeric		x	
		2	interstitial	x		
	4.4-5.0					
	4.4-5.0					
	4.4-5.0					
	4.4-5.0					
	4.4-5.0					
		2	pericentromeric		x	
	26-30	28	pericentromeric, terminal		x	x
		2	interstitial	x		
		34	pericentromeric, whole ar	x	x	x
		4	pericentromeric		x	
		4	interstitial	x		
		38	pericentromeric		x	
		2	pericentromeric		x	
		2	interstitial	x		
		2	interstitial	x		
		2	interstitial	x		
	1.32-1.86	4	terminal			x

1.32-1.86	2	terminal		x
1.32-1.86	4	terminal		x
1.32-1.86	4	terminal		x
3.4-4.28				
	2	pericentromeric		x
0.97-1.2	15	pericentromeric		x

	4	terstitial, pericentromer	x	x	
	2	pericentromeric		x	
	2	pericentromeric		x	
	2	pericentromeric		x	
	2	interstitial	x		
	2	terminal			x
	2	pericentromeric		x	

	4				
	10	terminal			x
	4	terminal			x
	6	terminal			x
	2	interstitial, terminal	x		x
	2	pericentromeric		x	
	2	terminal			x
	2	pericentromeric		x	
	2	interstitial	x		
	2	interstitial	x		

	2	pericentromeric		x	
1.46-1.68	4	terstitial, pericentromer	x	x	

	2	terminal			x
	2	terminal			

			2	terminal			x
		2-14	8	pericentromeric, terminal	x		x
			2	pericentromeric	x		
			2	pericentromeric	x		
2.32-2.8		2-10	6	stitial, pericentromeric, te	x	x	x
			4	terminal			x
			4	interstitial, terminal	x		x
2.44-3.6	2.44-3.78		8	interstitial, whole arm	x	x	x
5.86-6.48	5.54-7.52		2	terminal			x
	32.32-40.9						
	32.32-40.9						
			4	interstitial, terminal	x		x
			4	interstitial	x		
	2.30-3.66						
	2.30-3.66						
	2.3-3.66						
	3.16-4.54		8	interstitial, terminal	x		x
	3.16-4.54		2	terstitial, pericentromer	x	x	
	3.16-4.54	2-6	4	tial, pericentromeric, te	x	x	x
			6	pericentromeric, terminal	x		x
		6-8	7	stitial, pericentromeric, te	x	x	x
		8-11	9.5	stitial, pericentromeric, te	x	x	x
	3.16-4.54	2-12	7	stitial, pericentromeric, te	x	x	x
	3.16-4.54		13	pericentromeric		x	
	3.16-4.54						
	3.16-4.54		2	pericentromeric		x	
	3.16-4.54						
	3.16-4.54		2	pericentromeric		x	
	3.16-4.54						
3.16-4.2	3.16-4.54		8				
3.16-4.2	3.16-4.54						
	3.16-4.54	2-9	5.5	pericentromeric, terminal	x		x
	3.16-4.54	5-12	8-May	stitial, pericentromeric, te	x	x	x
	3.16-4.54	2-4	3	pericentromeric, terminal	x		x
			2	pericentromeric	x		
			2	pericentromeric	x		
			2	terminal			x
	1.36-1.74		2	pericentromeric		x	
	1.36-1.74		2	pericentromeric		x	
	3.98-7.58						
			4	interstitial	x		

	0.40-0.50							
	0.40-0.50							
	0.40-0.50							
	0.40-0.50							
	0.40-0.50							
	0.40-0.50							
	0.40-0.50							
	0.40-0.50							
0.42-0.50	0.40-0.50							
	0.40-0.50		2		interstitial		x	
	1.90-2.88		2		interstitial		x	
	16.68-29.44		2		interstitial		x	
	16.68-29.44							
	16.68-29.44	19-20	19.5		terstitial, pericentromer		x	x
	16.68-29.44							
	16.68-29.44							
	16.68-29.44	22-24	23		itial, pericentromeric, te		x	x
	16.68-29.44							
	16.68-29.44	22-24	21		itial, pericentromeric, te		x	x
24.62-29.44	16.68-29.44							
17.28-17.36	16.68-29.44		6		terstitial, pericentromeric			
			2		pericentromeric		x	
			4		pericentromeric		x	
	1.76-2.64		4		pericentromeric		x	
	1.76-2.64		4		terminal			x
2.57-3.22								
			4		terminal			x
1.98-2.12	1.98-2.12		3		terminal			x
			2		interstitial, terminal		x	x
			2		interstitial		x	
			4		pericentromeric			x
			4		pericentromeric			x
2.04-2.06			2		terstitial, pericentromer		x	x

2.64-3.10	68	terminal		x
2.64-3.10	74	pericentromeric, terminal	x	x
	2	pericentromeric	x	
	2	interstitial	x	
	14	terminal		x
	2	terminal		x
6.42-6.50				
2.58-2.90				
	2	terminal		x
	2	terminal		x

	4.62-5.08		2	interstitial	x	
	0.96-2.4		8	terminal		x
2.8-3.8	2.8-4.4		2	pericentromeric	x	
	2.8-4.4		2	pericentromeric	x	
	2.8-4.4		2	pericentromeric	x	
			2	terminal		x
			1	terminal		x
			2	pericentromeric	x	
			2	pericentromeric	x	
2.78-2.88			2	terminal		x
		2-4	3	interstitial	x	
	2.58-3.48		2	terminal		x
	2.58-3.48	2-4	3	interstitial, terminal	x	x
	2.58-3.48		2	terminal		x
	2.58-3.48	2-4	3	pericentromeric, terminal	x	x
	2.58-3.48		4	pericentromeric, terminal	x	x
	2.58-3.48		4	interstitial	x	
	2.58-3.48		2	terminal		x
			6	terminal		x
	3.02-8.94					
	3.02-8.94					
	3.02-8.94					
	3.02-8.94					
			2			
			2	interstitial	x	
			2	terminal		x
2.54-2.66	2.36-3.0		6	pericentromeric	x	
1.4	2.36-3.0	5-6	5.5	pericentromeric	x	
2.38-2.42	2.36-3.0	6-8	7.1	pericentromeric	x	
		2-4	3	terminal		x

10.56-12.7	1.54-1.58		8	terstitial, pericentromeric	x		
4.82-5.12			2	terminal			x
			2	pericentromeric	x		
	1.62-1.86						
	1.62-1.86						
	1.6-2.8		2	terminal			x
	1.6-2.8		2	pericentromeric	x		
2.0-2.6	1.6-2.8		2	pericentromeric	x		
	1.6-2.8		2	terminal			x
	1.6-2.8						
	1.6-2.8		2	pericentromeric	x		
	1.9-2.14						
	1.9-2.14						
	1.9-2.14						
	1.9-2.14						
6.82-6.9	6.28-7.18		5	stitial, pericentromeric, te	x	x	x
6.28-7.18	6.28-7.18						
3.9-5.2	3.4-5.2						
		2-Apr	3	pericentromeric, terminal	x		x
	0.34-1.16						
			2	pericentromeric	x		
			2	terminal			x
			14	pericentromeric, terminal	x		x

			2	pericentromeric	x		
	3.26-3.38		2	interstitial	x		
			2	terminal			x
2.62-3.36			2	pericentromeric	x		
	1.68-1.96		2	interstitial	x		
5.6-9.24			2	interstitial	x		
			2	interstitial	x		
			4	pericentromeric, terminal	x	x	
			2	terminal			x
1.1-2.04	1.1-2.04		2	pericentromeric	x		
			2	terminal			
			2	terminal			x
			2	interstitial	x		
2.74-4.6	2.48-5.2		2	terminal			x
	2.74-5.2	6-8	7	pericentromeric	x		
2.4-2.76	2.02-3.2	8-10	9	pericentromeric, terminal	x	x	
			4	pericentromeric, terminal			x
	4.82-5.44						
	4.82-5.44						
	4.82-5.44						
	8.34-10.44						
	8.34-10.44						
	8.34-10.44						
	8.34-10.44						
	8.34-10.44						
1.24-1.8			4	interstitial	x		
			4	terminal			x

1.62-1.98	1.38-1.98						
	1.38-1.98	2	pericentromeric, terminal	x		x	
	1.38-1.98	2	pericentromeric	x			
	1.38-1.98	2	pericentromeric, terminal	x		x	
	1.38-1.98						
3.88-6.02	3.88-6.64						
4.9-8.06	5.30-8.06						
	5.30-8.06						
	5.30-8.06						
	5.30-8.06						
	5.30-8.06						
	5.30-8.06	2	terminal			x	
	5.30-8.06						
	5.30-8.06						
	5.30-8.06						
	5.30-8.06						
	5.30-8.06						
	5.30-8.06						
	5.30-8.06						
	5.30-8.06						
	5.30-8.06						
	5.30-8.06						
	5.30-8.06	2	terminal			x	
5.30-8.06	5.30-8.06	2	terminal			x	
	5.30-8.06						
	5.30-8.06	2	terminal			x	
	5.30-8.06						
	5.30-8.06	2	terminal			x	
		2	interstitial				
		4	pericentromeric				
		4	pericentromeric				
4.68-5.3	7.20-12.04						
	7.20-12.04						
		2	terminal			x	
		2	terminal			x	
		2	terminal			x	
		2	terminal			x	
3.22-3.8	2.58-4.22						
3.2-3.42	2.58-4.22	8	interstitial	x			
2.82-3.84	2.58-4.22	6	interstitial	x			
	2.58-4.22	8	stitial, pericentromeric, te	x	x	x	
	2.58-4.22	2-4	3	stitial, pericentromeric, te	x	x	x
	0.64-0.66						

	5.18-5.32		2	terminal			
			2	pericentromeric		x	
		2-4	3	pericentromeric, terminal		x	x
			2	interstitial, terminal	x		x
			2	interstitial	x		
3.98-4.06 3.56-3.94	3.64-5.02		2	pericentromeric		x	
	4.56-5.26						
3.2-3.48			2	pericentromeric		x	
1.72-3.44 2.2-2.6			2	terminal			x
			2	pericentromeric, terminal		x	x
			2	terminal			x
			2	pericentromeric		x	
			2	interstitial	x		
			2	interstitial	x		
		3-4	2	interstitial	x		
			3.5	pericentromeric		x	
			6	interstitial	x		
3.32-3.34	3-4		4	interstitial, terminal		x	x
3.32-3.34			2	terminal			x
3.32-3.34			3	terminal			x
		17-18	17.5	pericentromeric			
			6	pericentromeric		x	
			8	pericentromeric, terminal		x	
			2	pericentromeric		x	

			2	pericentromeric	x		
4.98-3.52	1.87-3.3						
5.4-6.58	1.87-3.3		6	terminal			x
3.74-5.84	1.87-3.3	3-4	3.5	pericentromeric	x		
4.9-6.6	1.87-3.3	12-14	13	interstitial	x		
			2				
	95.08						
			2	terminal			x
			2	pericentromeric	x		
			2	interstitial			
	1.62-2.42						
	1.62-2.42		5	interstitial	x		
1.62-2	1.62-2.42		6	interstitial	x		
1.9-2.4	1.62-2.42		6	interstitial	x		
			2	pericentromeric		x	
			18	stitial, pericentromeric, te	x	x	x
			4	interstitial, terminal	x		x
	1.24-1.38		8	terminal			x
4.68-7							
		8-10	9	interstitial, terminal	x		x
			2	pericentromeric			
			2	pericentromeric			

		2	terminal			x
6.92-7.7		2	terminal			x
		2	pericentromeric		x	
		2	interstitial	x		
	2.84-2.88					
	2.84-2.88					
	2.84-2.88					
		2	pericentromeric		x	
		3	pericentromeric		x	
		6	pericentromeric, terminal		x	x
1.08-1.8		2	whole arm	x	x	x
		16	pericentromeric			
	1.06-1.6	2	pericentromeric		x	
	1.06-1.6					
	1.06-1.6					
		2	interstitial	x		
		2	interstitial, pericentromeric	x	x	

	3	terminal				x
	2	terminal				x
1.1-1.26						
1.1-1.26	2	terminal				x
	2	terminal				x
	2	terminal				x
	2	interstitial	x			
	2	interstitial	x			
1.79-2.30						
	4	interstitial	x			
6.48-8.72	5	pericentromeric				x
	6	interstitial	x			
	16	pericentromeric, terminal				x
	2	terminal				x
	2					
	2	whole arm	x	x		x
	2	terminal				x
4.44-4.9						

5.04-5.16	5.04-5.24						
	5.04-5.24						
	5.04-5.24						
	3.50-3.72		4	terstitial, pericentromer	x	x	
	3.50-3.72		2	terminal			x
			16	pericentromeric, terminal		x	x
			20	terminal			x
			4	terminal			x
			4	pericentromeric		x	
	1.14-2.04						
	1.14-2.04		2	terminal			x
	1.14-2.04		5	pericentromeric, terminal	x	x	x
	1.14-2.04	2-3	2.5	pericentromeric	x		
	1.14-2.04		2	pericentromeric	x		
	1.14-2.04		2	terminal			x
	1.14-2.04		3	terminal			x
	1.14-2.04		2	terminal			x
	1.2-1.38		4	interstitial, terminal	x		x
	1.2-1.38		4	terstitial, pericentromer	x	x	
2.68-2.76	1.2-1.38		6	stitial, pericentromeric, te	x	x	x
2.24-2.76	1.2-1.38		6	terstitial, pericentromer	x	x	
	3.98-5.22						
			2	pericentromeric		x	
	4.86-5.54						
	4.86-5.54		2	pericentromeric		x	

3.9-4.9	2.10-4.12	4-6	5	pericentromeric		x
			6	terstitial, pericentromer	x	x
	7.38-14.5		2	terminal		x
	7.38-14.5		2	terminal		x
7.2-8.2			2	terminal		x
	3.4-4.4		2	terminal		x
	1.98-2.02		2	interstitial	x	
	1.98-2.02		2	terminal		x
	1.98-2.02		2	terminal		x
				4	interstitial, terminal	x

		2-3	2.5	pericentromeric, terminal	x	x	
	1.54-1.68		2	terminal			x
	1.54-1.68		2	terminal			x
			2	terminal			x
	3.08		2	interstitial	x		
			4	terminal			x
			4	terminal			x
			2	terminal			x
		2-3	2.5	pericentromeric, terminal, whole	x	x	x
			2	pericentromeric		x	
1.29-1.46			2	interstitial	x		
	0.99-1.01						
	0.99-1.01						
	0.99-1.01		2	terminal			x
	4.56-5.68		6	pericentromeric, terminal	x		x
2.4-2.4			2	pericentromeric	x		
			2	pericentromeric	x		
			2	terminal			x
			6	pericentromeric	x		
	0.98-2.4		8	pericentromeric	x		
	0.98-2.4		16	pericentromeric	x		
		2-4	3	pericentromeric, terminal	x		x
		5-6	5.5	pericentromeric	x		
			8	pericentromeric	x		
			4	terminal, whole arm	x	x	x
	5.4-7.6						
	5.4-7.6		4	terminal			x
13.26-18	6.62-23.06		2	pericentromeric	x		
10.22-23.06	6.62-23.06		2	terminal			x
	6.62-23.06		6	pericentromeric	x		
6.62-9.82	6.62-23.06		2	pericentromeric	x		
5.96-7.8	5.26-7.64		4	interstitial, terminal	x		x
			2	interstitial	x		
			2	pericentromeric		x	
			2	pericentromeric		x	
		2-3	2.5	interstitial, pericentromeric	x	x	
			4	terminal			x
			11	interstitial, pericentromeric	x	x	

			2	terminal			x
	3.74-5.36		18	terminal			x
			2	pericentromeric		x	
	1.9-2.24						
1.9-2.24	1.9-2.24						
0.52-1.18							
			2	whole arm	x	x	x
			2	terminal			x
			8	terminal			x
		8-12	10	pericentromeric, terminal	x		x
		7-10	8.5	pericentromeric, whole arm	x	x	x
		8-12	10	terminal			x
			10	pericentromeric, terminal		x	x
			10	interstitial, pericentromeric, terminal	x	x	x
	4.22-4.38						
			2	interstitial, terminal	x		x
			2	interstitial, terminal	x		x
			4	interstitial, pericentromeric	x	x	
		2-4	3	interstitial, pericentromeric	x	x	
5.96-6.54	2.59-4.9		2	pericentromeric		x	
5.8-6.38	2.59-4.9		2				
			2	short arm of microchromosome	x	x	x
			2	long arm of microchromosome	x	x	x
5.84-7.4	2.86-3.75	6-8	7	terminal			x
	2.86-3.75		4	interstitial	x		
5.72-7	2.86-3.75	2-8	4.5	terminal			x
	2.86-3.75	6-8	7				
	2.86-3.75		6	terminal			x
	2.12-2.28		2	terminal			x
			2	interstitial	x		
			2	interstitial	x		
	4.72-5.46						
	4.72-5.46						
	4.72-5.46						

4.72-5.46							
4.72-5.46							
4.72-5.46							
4.72-5.46							
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4.72-5.46							
4.72-5.46							
4.72-5.46							
4.72-5.46							
4.72-5.46							
4.72-5.46							
		6-7	6.5	pericentromeric	x		
			2	pericentromeric	x		
			2	pericentromeric	x		
	1.3-1.72						
			2	interstitial	x		
	11.30-15.00						
	11.30-15.00						
			14	interstitial, terminal	x		x
			16	terminal			x
			4	terminal			x
2.96-3.24	2.96-3.24		2	whole microchromosome	x	x	x
			4	interstitial, terminal			
		4-8	6	interstitial, pericentromeric	x	x	
			8	interstitial	x		
			2	pericentromeric		x	
			2	pericentromeric		x	
			2	pericentromeric		x	
			2	terminal			x
17.1-17.92	17.10-18.98		6	pericentromeric, terminal	x		x
	17.10-18.98						
			8	terminal			x
		4-6	5	terminal			x
		17-18	17.5	terminal			x
			16	terminal			x
		2-3	2.5	pericentromeric		x	
			18	terminal			x
		2-8	5				
	2.86-3.68		4	interstitial, pericentromeric	x	x	
	2.86-3.68		4	interstitial, pericentromeric	x	x	
	2.86-3.68		2	interstitial	x		

2.86-3.68		4	terstitial, pericentromer	x	x	
2.86-3.68		4	terstitial, pericentromer	x	x	
2.86-3.68		4	pericentromeric, terminal		x	x
2.86-3.68		4	terstitial, pericentromer	x	x	
17.10-18.98						
		4	terstitial, pericentromer	x	x	
5.30-5.82						
5.30-5.82	2-4	3	interstitial, terminal	x		x
		2	interstitial	x		
		4	interstitial	x		
	23-24	23.5	pericentromeric		x	
	21-22	21.5	pericentromeric		x	
0.45-0.5		2	pericentromeric		x	
0.45-0.5		2	pericentromeric, terminal		x	x
1.08-2.4		2	pericentromeric		x	
1.08-2.4		2	pericentromeric		x	
1.08-2.4		2	terminal			x
		2	terminal			x
		2	terminal			x
		6	terminal			x
		6	interstitial, terminal	x		x
		2	interstitial		x	
0.75-0.9		4	interstitial	x		
0.75-0.9		2	interstitial, terminal	x		x
		2	terminal			x
		2	interstitial	x		
1.43-1.73						
1.43-1.73		2	terstitial, pericentromer	x	x	
		10	interstitial, terminal	x		x
2.2-2.4						
2.2-2.4						

5.22-5.68	5.06-5.68					
5.96-7.02			2	pericentromeric	x	
2.38-2.5			2	terminal		x
			2	pericentromeric	x	
5.62-8.52		6-7	6.5	pericentromeric, terminal	x	x
	0.96-1.32		2	pericentromeric		x
			4	interstitial, terminal	x	x
	3.24-3.94		2	terminal		x
			2	terminal		x
			2	interstitial, terminal	x	x
			4	interstitial	x	
		2-4	3	interstitial	x	
			4	interstitial, pericentromeric	x	x
			2	pericentromeric		x
			2			
			4			
0.7-0.82	0.35-0.48		2	terminal		x
0.7-1.02	0.35-0.48		2	terminal		x
			2	terminal		x
			2	terminal		x
	3.82-6.02					
	3.82-5.46					
3.82-6.02	3.82-5.46					
	3.98-4.3		6	pericentromeric	x	
	2.4		6	pericentromeric, terminal	x	x
	2.4		2	pericentromeric	x	

4.54-4.7	4.54-5.02		2	terminal			x
	4.54-5.02		2	terminal			x
	4.54-5.02		4	terminal			x
			2	terminal			x
			2	terminal			x
		2-4	3	pericentromeric		x	
			2	terminal			x
			4	pericentromeric		x	
3.86-5.30	2.86-7.50						
	1.72-3.75		2	whole arm	x	x	x
	1.72-3.76		2	whole arm	x	x	x
	1.72-3.77		4	terminal			x
4.44-4.82							
			2	terstitial, pericentromer	x	x	
	1.19-1.82		2	whole arm	x	x	x
	1.19-1.82						
	1.19-1.82						
	1.19-1.82		2	whole arm	x	x	x
	1.19-1.82		2	whole arm	x	x	x
	1.19-1.82		2	whole arm	x	x	x
	1.19-1.82						
	1.19-1.82						
	1.08-5.80						
	1.08-5.80						
	1.08-5.80						
	1.08-5.80						
	1.08-5.80						
	1.08-5.80						
	1.08-5.80						
	1.08-5.80						
3.6-5.8	1.08-5.80						
1.84-2.14	1.08-5.80						
1.84-2.14	1.08-5.80						
1.84-2.14	1.08-5.80						
	1.08-5.80						
	1.08-5.80						
	1.08-5.80						
	1.08-5.80						
	1.08-5.80						
2.06-3	1.08-5.80						
1.03-1.5	1.08-5.80						
	1.08-5.80						
	1.08-5.80						

	1.08-5.80							
	1.08-5.80							
	1.08-5.80							
	1.08-5.80							
	1.08-5.80							
	1.08-5.80							
	1.08-5.80							
	1.08-5.80							
	1.08-5.80							
	1.08-5.80							
1.74-2.66	1.08-5.80							
	1.08-5.80							
	1.08-5.80							
	1.08-5.80							
	1.08-5.80							
	1.08-5.80							
	1.08-5.80							
	1.08-5.80							
	1.08-5.80							
	1.08-5.80							
	1.08-5.80							
	1.08-5.80							
	1.08-5.80							
	1.08-5.80							
	1.08-5.80							
	1.15-1.31		2	whole arm		x	x	x
			2	terminal				x
			2	terminal				x
			10	terminal				x
			2	terminal				x
		2-4	3	terminal				x
	1.34-3.46		2	terminal				x
	1.34-3.46		2	terminal				x
			2	interstitial, terminal		x		x
		2-4	2	terminal				x
48.30-54.90	28.50-67.00		2	interstitial		x		
	2.82							
			2	pericentromeric			x	
2.60-6.10			10	pericentromeric			x	

	2.18-3.86						
	2.18-3.86						
6.6-6.54			2	interstitial	x		
			8	interstitial	x		
4.84-5.34							
	5.46-5.60						
	3.36-4.86		2	terminal			x
	3.36-4.86						
	2.38-4.8						
3.36-4.86	3.36-4.86		2	terminal			x
			2	terminal			x
			2	terminal			x
			2	interstitial	x		
			2	pericentromeric		x	
	6.48						
			2	pericentromeric		x	
7.5-8		6-8	7				
	6-15.90		18	terminal			x
6-7.70			2	terminal			x
	6-15.90		6	terminal			x
			10	terstitial, pericentromer	x	x	
			4	pericentromeric		x	
1.52-1.98	0.71-1		2	interstitial	x		

2

terminal

x

45S range	45S number	probe	45S Position	int.	cen.	ter.	
5-10	7.5	18S	pericentromeric, terminal		x	x	
	2	18S	terminal			x	
	2	18S	terminal			x	
	2	18S	terminal			x	
	2	18S	terminal			x	
	2	18S	terminal			x	
	3	18S					
	2	18S, 28S	terminal			x	
	2	18S	interstitial	x			
	2	18S	interstitial	x			
	2	18S	pericentromeric		x		
	2	18S	terminal			x	
	10-12	11		terminal			x
	6-8	7	18S	pericentromeric, terminal		x	x
6-8	7		terminal			x	
6-8	7		terminal			x	
10-12	11		terminal			x	
	2	18S	terminal			x	
	2	18S	terminal			x	
	2		terminal			x	
	2		terminal			x	
	2		terminal			x	
	2	18S	interstitial	x			
	2	18S	terminal			x	
	4		terminal			x	
	3-4	3.5		terminal			x
		2		terminal			x
		2		pericentromeric		x	
		2	18S	terminal			x
		3	18S	interstitial, pericentromeric	x	x	
2			terminal			x	
2		18S	terminal			x	
2		18S	interstitial	x			
2		18S	interstitial	x			
2		18S	terminal			x	
2		28S	terminal			x	
2		28S	microchromosome				
2		28S	microchromosome				
2		18S	pericentromeric, whole arm	x	x	x	
2	18S						
2	28S	terminal			x		
2-3	2.5		interstitial	x			
	2	18S	terminal			x	
	2	18S	terminal			x	
	2	18S	terminal			x	

	4		interstitial, terminal	x		x
4-5	4.5	18S	terminal			x
	2		terminal			x
	2		interstitial	x		x
	2		interstitial	x		
	2	18S	interstitial	x		
	2		interstitial	x		
	2	18S	terminal			x
1-2	1.5		terminal			x
	2	18S	terminal			x
	2		pericentromeric		x	
	2	18S	terminal			x
	2	18S	whole arm of microchromosome			
	2		terminal			x
	2	18S	terminal			x
5-8	6.5		terminal			x
	2	18S	pericentromeric, terminal		x	x
	2	18S	terminal			x
6-16	11	18S	pericentromeric, terminal		x	x
	2	18S	interstitial	x		
	2	18S	interstitial	x		
	2	18S	interstitial	x		
	2	18S	terminal			x
	2	18S	whole arm	x	x	x
	2	18S	interstitial	x		
	2	18S	interstitial	x		
	2	18S	interstitial	x		
	2	18S	interstitial	x		
	2	28S	whole arm	x	x	x
	2	18S	terminal			x
	2	28S	terminal			x
	2	18S	terminal			x
	2	18S	terminal			x
	2	28S	terminal			x
	2	18S	terminal			x
	2	18S	terminal			x
	4	28S	pericentromeric		x	
	2	18S	whole arm of microchromosome			
	2		terminal			x
	2	18S	terminal			x
	2		terminal			x
1-14	8	18S	terminal			x
	2	28S	pericentromeric		x	
	4		terminal			x
	6		terminal			x
	6		terminal			x
	22		terminal			x

	5		terminal					x
	4		terminal					x
	2		terminal					x
	18		interstitial, terminal			x		x
	2	18S	terminal					x
	6	18S	pericentromeric				x	
	2	18S	interstitial, terminal			x		x
	2	18S	interstitial			x		
	4		terminal					x
	6		pericentromeric, terminal				x	x
	2	18S	pericentromeric					x
	2	18S	pericentromeric				x	
	2	28S	interstitial, terminal			x		x
	2	28S	terminal					x
	2	28S	whole arm			x	x	x
	2	28S	pericentromeric				x	
	6	18S	interstitial, terminal			x		x
	7	18S	terminal					x
	4	28S	terminal					x
	6	18S	terminal					x
	6	18S	terminal					x
	6	18S	pericentromeric, terminal				x	x
	2	18S	terminal					x
	2		interstitial			x		
	6	18S	interstitial, pericentromeric			x	x	x
	2		pericentromeric				x	
	6	18S	terminal					x
	4		pericentromeric, whole arm			x	x	x
	5		pericentromeric, whole arm			x	x	x
	2	18S	terminal					x
	5	18S	pericentromeric				x	
	2	18S	interstitial			x		
	2		terminal					x
	2	18S	terminal					x
4-7	4.75	18S	terminal					x
	2	18S	pericentromeric, interstitial			x	x	
	2	18S	terminal					x
	2	18S	terminal					x
2-8	5	18S	terminal					x
	2	18S	terminal					x
	4	18S	terminal					x
	2	18S	whole arm			x	x	x
5-6	5.5	18S	terminal					x
	4	18S	pericentromeric				x	
	2		pericentromeric, terminal				x	x
	22	18S	terminal					x
2-4	3	18S	pericentromeric, terminal				x	x

8-12	10		pericentromeric, terminal		x	x
6-8	7	18S	terminal			x
	4	18S	whole arm	x	x	x
4-14	9		pericentromeric, terminal		x	x
	4	28S	pericentromeric, whole arm	x	x	x
	6	18S	terminal, whole arm	x	x	x
	4		pericentromeric		x	
	2	18S	terminal			x
	2	18S	terminal			x
19-20	19.5	28S	pericentromeric		x	
	2	28S	terminal			x
	2	18S	interstitial	x		
	2	18S	interstitial	x		
	2	18S	interstitial	x		
	2	18S	interstitial	x		
	2	18S	terminal			x
	2	18S	terminal			x
	4		terminal, whole arm	x	x	x
	4		terminal, whole arm	x	x	x
	4	18S	terminal			x
	6					
	2	18S	terminal			x
	2	28S	terminal			x
	2	28S	terminal			x
	2	18S	pericentromeric		x	
	2	18S	terminal			x
	2	18S	pericentromeric, terminal		x	x
	2	18S	terminal			x
	4	18S	terminal			x
	4	18S	terminal			x
	2	18S	terminal			x
	2	18S	terminal			x
	2	18S	terminal			x
	2	18S	terminal			x
	2	18S	terminal			x
	2	18S	terminal			x
	2	18S	terminal			x
10-12	5	28S	terminal			x
8-10	7	28S	terminal			x
	2	18S	microchromosome			
	2	18S	microchromosome			
	2	18S	microchromosome			
	2	18S	interstitial	x		
	2		interstitial	x		
	2		terminal			x
2-10	6	28S	terminal			x
6-10	7	28S	terminal			x

6-10	8	28S	terminal			x
	10	28S	terminal			x
	6	28S	interstitial, terminal	x		x
	2	28S	interstitial, terminal	x		x
	2	18S, 28S	terminal			x
	2	18S	terminal			x
	2	18S	terminal			x
	2	18S	terminal			x
	2	18S	terminal			x
	2	28S	interstitial	x		
	2	28S	interstitial	x		
	2	18S, 28S	terminal			x
	4	28S	terminal, whole arm	x	x	x
	2		terminal			x
4		terminal			x	
2	18S	pericentromeric		x		
2	18S	pericentromeric		x		
2	18S, 28S	microchromosome				
2	18S	interstitial, terminal	x		x	
6-16	11	18S	terminal, whole arm	x	x	x
	2	18S	terminal			x
2-6-10	6	18S	terminal			x
6-14	10	18S	terminal, whole arm	x	x	x
	2	18S	terminal			x
	4		pericentromeric, terminal		x	x
8-12	10	28S	terminal			x
	10	18S	terminal			x
	8		terminal			x
	2	18S-28S	microchromosome			
	2	18S-28S	microchromosome			
	2		terminal			x
	2		pericentromeric		x	
	2	18S	terminal			x
	2	18S	terminal			x
	2		terminal			x
	2		interstitial	x		x
	2		interstitial	x		
2-3	2.5	18S	interstitial, terminal	x		x
	2	28S	terminal			x
	4	28S	microchromosome			
	2	18S, 28S	terminal			x

	2	18S, 28S	terminal			x
	2	18S, 28S	terminal			x
	2	18S, 28S	terminal			x
	2	18S, 28S	terminal			x
	2	18S	pericentromeric		x	
	2	18S	pericentromeric		x	
	2	18S	pericentromeric		x	
	4	18S	pericentromeric		x	
	2	18S	pericentromeric		x	
6-Jul	6.5		terminal			x
	8	18S	terminal			x
	2		pericentromeric		x	
	2	18S	terminal			x
	2	18S	terminal			x
	2	18S	terminal			x
	2	18S	terminal			x
5-6	5.5		terminal			x
	4	28S	terminal			x
	2	18S	interstitial	x		
	2		interstitial	x		
1-2	1.5		pericentromeric		x	
	2	28S	interstitial	x		
	2	18S	terminal			x
	4	18S	pericentromeric		x	
	2	18S, 28S	microchromosome			
	2	18S	terminal			x
	2		microchromosome			
	2		microchromosome			
	4	18S	terminal			x
	6	18S	pericentromeric		x	
	2	18S	pericentromeric		x	
14-16	15		interstitial, terminal	x		x
	2	18S	terminal			x
	2	18S	pericentromeric		x	
	2	18S	terminal			x
	2	18S	whole arm	x		x
	2	18S	terminal			x
	4	28S	terminal			x
	9		terminal			x
	2		terminal			x
	4	28S	terminal			x
	2	18S	interstitial	x		
	2	18S	terminal			x
2-4	3	18S	terminal			x
	2	18S	terminal			x
	2	18S	terminal			x
	2	18S	terminal			x
	4	18S	whole arm	x	x	x

	2	18S	terminal			x
	6	28S	terminal			x
	4	18S	pericentromeric		x	
	2	18S	interstitial	x		
	12	18S	terminal			x
	2	18S	terminal			x
	2	18S	terminal			x
	2	28S	pericentromeric		x	
	2	28S	terminal			x
	2	18S	interstitial	x		
2-10	6	28S	pericentromeric, terminal		x	x
3-6	4.5	28S	pericentromeric, terminal		x	x
2-5	3.5	28S	terminal			x
	2	18S	microchromosome			
	2	18S	microchromosome			
	2	28S	terminal			x
	8	18S	interstitial	x		
1-2	1.5	18S	terminal			x
5-6	6	18S	interstitial, terminal	x		x
	2	18S	interstitial	x		
	2		pericentromeric		x	
2-4	3	18S	interstitial, pericentromeric, terminal	x	x	x
	2	28S	terminal			x
	2	18S				
5-6	5.5					
10-16	13					
	2	18S	microchromosome			
3-8	5.5					
	40	18S	pericentromeric, terminal		x	x
6-12	9		pericentromeric, terminal		x	x
	2					
	8	28S	pericentromeric		x	
	4	18S	interstitial	x		
	3	18S	pericentromeric, terminal		x	x
	2	18S	terminal			x
	2		terminal			x
	4		terminal			x
	2		terminal			x
	2	18S	terminal			x
	2	18S	terminal			x
	6		microchromosome			
	2		terminal			x
	2		terminal			x
	2		terminal			x
	2		terminal			x
	2		terminal			x
	2		terminal			x
	2	18S	interstitial	x		

	10		terminal					x
	2		interstitial			x		
	2		interstitial			x		
	4	28S	microchromosome					
	4	28S	terminal, microchromosome					x
	2	28S	terminal					x
	2	28S	interstitial			x		
	2	28S	whole arm			x	x	x
	2	18S	terminal					x
	2	18S	terminal					x
	2	18S	terminal					x
	2	18S						
	2	18S	terminal					x
13-14	13.5	18S	interstitial, pericentromeric, terminal			x	x	x
	4	18S	terminal					x
	2	28S	terminal					x
	6	18S	pericentromeric, terminal				x	x
	2	18S	terminal					x
	2	18S	terminal					x
	2	18S	terminal					x
	2	18S	terminal					x
	2	18S	terminal					x
	2	18S	terminal					x
	4	18S	terminal					x
	2		terminal, whole arm			x	x	x
	2	28S						
	5		terminal					x
	8		terminal					x
	4	18S	interstitial, terminal			x		x
	2	28S	interstitial			x		
5-8	6.5		pericentromeric				x	
	2							
5-6	5.5		terminal					x
4-5	4.5		pericentromeric				x	
6-8	7	28S	terminal					x
	2	18S	terminal					x
	2	18S	terminal					x
	2	18S	terminal					x
	2	18S	terminal					x
	2	18S	interstitial			x		
	2	18S	interstitial			x		
	2	18S	interstitial			x		
	6	28S	terminal					x
	8	28S	terminal					x
	4	28S	terminal					x
	8		pericentromeric				x	
	2	18S	pericentromeric				x	
	8	18S	terminal					x
5-8	6.5		pericentromeric				x	
	2	28S	interstitial			x		
	2	18S	interstitial			x		

	2	18S	interstitial	x		
	2	18S	pericentromeric		x	
	2	18S	pericentromeric		x	
	2	18S	terminal			x
	2	18S	interstitial	x		
	2	18S	interstitial	x		
	6	18S	terminal			x
	2		pericentromeric		x	
	2	18S	terminal			x
	2		interstitial	x		
	2		pericentromeric		x	
3-4	3.5	18S	pericentromeric, terminal		x	x
	2		interstitial	x		
	4	18S	terminal			x
	2		terminal			x
5-6	5.5	18S	pericentromeric, terminal		x	x
	2	18S	pericentromeric		x	
	2		pericentromeric		x	
1-2	1.5	18S	pericentromeric		x	
2-3	2.5		terminal			x
2-3	2.5	18S	terminal			x
	2	18S	pericentromeric		x	
	2	18S	pericentromeric		x	
	4	18S	pericentromeric		x	
	4	18S	pericentromeric		x	
	4	18S	pericentromeric		x	
	2		pericentromeric		x	
1-2	1.5	18S	terminal			x
	2	18S, 28S	interstitial	x		
	6		pericentromeric		x	
	4	18S	terminal			x
	2	28S	terminal			x
	2		interstitial	x		
	2	28S	whole arm	x	x	x
	4	28S	whole arm	x	x	x
	3	18S				
	2	18S	terminal			x
	2	18S	terminal			x
	2	18S	terminal			x
	4	18S	terminal, whole arm	x	x	x
	4	18S	terminal			x
	4		interstitial, pericentromeric	x	x	
9-10	9.5		pericentromeric		x	
	2		interstitial	x		
	2		pericentromeric		x	
	2		terminal			x
	2	28S	interstitial	x		
	2	18S, 28S	microchromosome			
	2		terminal			x

	2	18S	terminal			x
	2	18S	terminal			x
	2	18S	terminal			x
	2		pericentromeric, terminal		x	x
	2	18S				
	2	18S	terminal			x
	3	18S	terminal			x
	2	18S	terminal			x
	2	18S	terminal			x
	4	18S	terminal			x
	2	18S	terminal, whole arm	x	x	x
	2	18S	terminal			x
	2	18S	terminal			x
	2	18S	interstitial	x		
	4		terminal, whole arm	x	x	x
	2		terminal			x
	4		microchromosome			
	2	28S	microchromosome			
	2	28S	microchromosome			
	2		pericentromeric		x	
	2	18S	microchromosome			
	2	18S	pericentromeric		x	
	2	18S	interstitial	x		
	8	18S	whole arm	x	x	x
	2	18S				
	2		pericentromeric		x	
	2		pericentromeric		x	
	2		pericentromeric		x	
	2		terminal			x
	2	18S	pericentromeric		x	
	2	18S	terminal			x
	4	18S	terminal			x
	2	18S	microchromosome			
	2	18S	microchromosome			
	2	18S	microchromosome			
	2		pericentromeric		x	
	2	18S	whole arm	x	x	x
2-4	3	18S	pericentromeric, terminal		x	x
	2	28S	pericentromeric		x	
	2	28S	pericentromeric		x	
6-8	8		pericentromeric, terminal		x	x
	2	18S	terminal			x
15-16	15.5	18S	terminal			x
	10		interstitial, terminal	x		x
	2		terminal			x
	12	18S	pericentromeric, terminal		x	x
	2		terminal			x

	2	28S	pericentromeric		x	
	2	28S	pericentromeric		x	
	2	18S	terminal			x
5-7	6	18S	interstitial	x		
	2	18S	interstitial	x		
	2	18S	terminal			x
	2	18S	interstitial	x		
	4	18S, 28S	microchromosome			
	14	18S	interstitial, pericentromeric	x	x	
	9	18S	interstitial, terminal	x		x
	2	18S	pericentromeric		x	
	2	18S	interstitial	x		
	2	18S	pericentromeric		x	
	4		interstitial, pericentromeric	x	x	
	8	28S	terminal			x
	2	18S	whole arm of microchromosome			
	2	18S	whole arm of microchromosome			
	2	18S	interstitial	x		
	2	18S	interstitial	x		
	2	18S	interstitial	x		
	2	18S	interstitial	x		
	2	18S	interstitial	x		
	2	18S	interstitial	x		
	2	18S	interstitial	x		
	2	18S	interstitial	x		
1-2	1.5	18S	terminal			x
	2		pericentromeric		x	
	4	18S	pericentromeric		x	
	2	18S	pericentromeric		x	
	2	18S	pericentromeric		x	
	2	18S	terminal			x
	2	18S				
4-20	12		interstitial, pericentromeric	x	x	
	4		pericentromeric		x	
	2		pericentromeric		x	
	8		interstitial, terminal	x		x
	2		interstitial, pericentromeric	x	x	
	2	18S	terminal			x
	2		terminal			x
	2		terminal			x
4-6	5	18S	terminal			x
	2	18S	interstitial	x		
	2	18S	terminal, microchromosome			x
	2	28S	terminal			x
	2		pericentromeric		x	
	2		microchromosome			
	2	18S	terminal			x
2-6	4	18S	terminal			x

	2	18S	interstitial	x		
	2	28S	terminal			x
	2	18S	pericentromeric		x	
	2	28S	interstitial	x		
	2	28S	interstitial	x		
	2	28S	interstitial	x		
	2	28S	interstitial	x		
2-3	2.5	28S	interstitial	x		
2-3	2.5	28S	interstitial	x		
	2	28S	interstitial	x		
	2	18S, 28S	terminal			x
	10	18S	interstitial, pericentromeric	x	x	
	12	18S	interstitial, pericentromeric	x	x	
	8	18S	interstitial, pericentromeric	x	x	
	13	18S	interstitial, pericentromeric	x	x	
	2	18S	interstitial	x		
	6		interstitial	x		
	2	28S	terminal			x
	2	28S	interstitial	x		
	2	28S	terminal			x
	3	28S	terminal			x
	2	18S	pericentromeric		x	
	2	18S	interstitial	x		
	2	18S	terminal			x
	6	18S	pericentromeric		x	
	6	18S	pericentromeric		x	
	2	28S	interstitial, pericentromeric	x	x	
	5	18S	terminal			x
	2	18S	terminal, whole arm	x	x	x
4-5	4.5		terminal			x
	2	18S	interstitial	x		
	2	18S	terminal			x
	2	18S	terminal			x
	2		terminal			x
	2	18S	interstitial	x		
	2	18S	whole arm	x	x	x
	2		interstitial	x		
	21	18S	terminal			x
	2		interstitial	x		
	2		interstitial	x		
	2		pericentromeric		x	
	2	18S	interstitial	x		
	2	18S	interstitial	x		
	2	18S	interstitial	x		
	6		terminal			x

	10		terminal		x
	6		terminal		x
	6		interstitial, terminal	x	x
	4	18S	terminal		x
	2		terminal		x
	8		pericentromeric, terminal		x
	2	18S	terminal		x
	2	18S	terminal		x
	2	18S	terminal		x
	2	18S	terminal		x
2-4	2	18S	terminal		x
	3	18S	terminal		x
	4	18S	terminal		x
	2	18S	terminal		x
2-4	3	18S	terminal		x
	2	18S	terminal		x
	2	18S	terminal		x
	2	18S	terminal		x
	2	18S	terminal		x
	2	18S	terminal		x
	2	18S	terminal		x
	2	18S	terminal		x
	2	18S	pericentromeric		x
	2	18S	pericentromeric		x
	2	18S	interstitial	x	
	2	18S	pericentromeric		x
	2	18S	terminal		x
	2	18S	interstitial	x	
	2	18S	interstitial	x	
	5	18S	terminal		x
	2	18S	interstitial	x	
	2	18S	terminal		x
	2	18S	terminal		x
	2	18S	interstitial	x	
	2	18S	terminal		x
	2	18S	interstitial	x	
	2	18S	terminal		x
	2	18S	interstitial	x	
	2	18S	terminal		x
	2	18S	interstitial	x	
	2	18S	terminal		x
	2	18S	terminal		x
	2	18S	terminal		x
	2	18S	terminal		x
	2	18S	terminal		x
	2	18S	terminal		x
	2	18S	terminal		x
	2	18S	terminal		x
1-2	2	18S	interstitial	x	
	2	18S	terminal		x
	1.5		terminal		x
	8	18S	terminal		x
	2	18S	terminal		x
	4		pericentromeric		x
	4	18S	interstitial, terminal	x	x
	4		pericentromeric		x
	2	28S	terminal		x
	2	28S	terminal		x
	2	28S	terminal		x
	2	28S	terminal		x
	2	18S	terminal		x
	10	18S	terminal		x

	2	18S	terminal			x
4-28	16	18S	interstitial, pericentromeric, terminal	x	x	x
	2	18S	pericentromeric		x	
	2	18S	pericentromeric		x	
4-14	9	18S	pericentromeric, terminal		x	x
	2	18S	terminal			x
	2	18S	interstitial	x		
	2	28S	terminal			x
	3	5.8S	interstitial, terminal	x		x
	6		terminal			x
	2	18S	terminal			x
4-6	5		microchromosome			x
	12		interstitial, terminal, microchromosomes	x		x
2-4	3	18S	interstitial, terminal	x		x
2-4	3	18S	terminal			x
6-8	7	18S	terminal			x
	12	18S	terminal			x
	4	18S	terminal			x
	2	18S	terminal			x
	5	18S	terminal			x
2-4	3	18S	pericentromeric, terminal		x	x
4-8	6	18S	pericentromeric, terminal		x	x
2-6	4	18S	terminal			x
2-6	4	18S	pericentromeric, terminal		x	x
	2	18S	terminal, whole arm	x	x	x
	6	18S	terminal, whole arm	x	x	x
4-6	5	18S	whole arm	x	x	x
	4	18S	terminal			x
	2	18S	pericentromeric		x	
	2	18S	terminal			x
	2	18S	terminal			x
2-4	3	18S	terminal			x
	4	18S	pericentromeric, terminal		x	x
	2	18S	whole arm	x	x	x
2-5	3.5	18S	pericentromeric, terminal, whole arm	x	x	x
2-6	4	18S	terminal			x
2-4	3	18S	terminal			x
	2	18S	interstitial	x		
	2	18S	interstitial	x		
	2	18S	terminal			x
	2	18S	terminal			x
	2		terminal			x
	2		pericentromeric		x	
	2	18S	interstitial	x		
	2	18S	interstitial	x		
	2	18S	pericentromeric		x	
	2	18S	pericentromeric		x	
	2		microchromosome			
	2	18S, 28S	terminal			x
	2	28S	pericentromeric		x	

	4		pericentromeric, terminal		x	x
	2	28S	whole arm	x	x	x
	4	18S	terminal			x
	2	18S	terminal			x
	4	18S	terminal			x
2-4	3		pericentromeric		x	
	4	18S	terminal			x
	2	28S	whole arm	x	x	x
	2	18S	terminal			x
	2	18S	terminal			x
	2	18S	terminal			x
	2	18S	terminal			x
	2	18S	terminal			x
	2	18S	terminal			x
	2	18S	terminal			x
	4	18S	pericentromeric, terminal		x	x
	2	18S	terminal			x
	2	18S	terminal			x
	2	18S	terminal			x
	2	18S	terminal			x
	2	18S	terminal			x
	2	18S	terminal			x
	2	18S	terminal			x
	2	18S	terminal			x
	2	18S	terminal			x
	2	18S	terminal			x
	2	28S	terminal			x
	2	28S	terminal			x
	2	18S	terminal			x
	2	18S	microchromosome			
	2	18S				
	2	28S				
	2	28S				
	2		interstitial	x		
	2	28S	whole arm	x	x	x
	3	28S	terminal			x
	2	28S	terminal			x
	4	5.8S	pericentromeric, terminal		x	x
8-10	9	5.8S	interstitial	x		
2-4	3	5.8S	terminal			x
	2	5.8S	terminal			x
	4	5.8S	interstitial	x		
	4	5.8S	interstitial, terminal	x		x
	2	5.8S	interstitial	x		
	2	5.8S	terminal			x
	2	5.8S	terminal			x
	2	5.8S	interstitial	x		
	2	5.8S	interstitial	x		
	12	5.8S	interstitial	x		

	2	5.8S	terminal			x
	6	5.8S	interstitial, terminal	x		x
	2	5.8S	interstitial	x		
	2	5.8S	terminal			x
	6	5.8S	interstitial, terminal	x		x
	2	5.8S	pericentromeric		x	
	2	5.8S	interstitial	x		
	2	5.8S	terminal			x
4-6	5	5.8S	interstitial	x		
	2	ITS1	terminal			x
	4	28S	pericentromeric		x	
	4	28S	terminal			x
	4		interstitial, terminal	x		x
5-6	5.5		interstitial, pericentromeric	x	x	
	10		interstitial, pericentromeric	x	x	
5-6	5.5		interstitial, terminal	x		x
	4		interstitial	x		
5-6	5.5		interstitial, pericentromeric	x	x	
	4		interstitial	x		
5-6	5.5		interstitial, pericentromeric	x	x	
	2		interstitial	x		
4-6	5		interstitial, terminal	x		x
	4		interstitial	x		
	2	18S	pericentromeric		x	
	2	18S	pericentromeric		x	
	2	18S				
	2		interstitial	x		
2-5	3.5	18S	terminal			x
	2	28S	terminal			x
	2	18S	terminal			x
	6	18S	terminal			x
	2	18S	terminal			x
	2	18S	interstitial	x		
	2	18S	interstitial	x		
	2		interstitial	x		
	22	18S	terminal			x
	2	28S	terminal			x
	4	18S	pericentromeric		x	
	4	18S	pericentromeric		x	
	4	18S	pericentromeric		x	
	4	18S	pericentromeric		x	
	4	18S	pericentromeric		x	
2-4	3	18S	pericentromeric		x	
	4	18S	pericentromeric		x	
	4	18S	pericentromeric		x	

	4	18S	pericentromeric		x	
	4	18S	pericentromeric		x	
	4	18S	pericentromeric		x	
	4	18S	pericentromeric		x	
	6	18S	pericentromeric		x	
	4	18S	pericentromeric		x	
	4	18S	pericentromeric		x	
	2	18S	pericentromeric		x	
	4	18S	pericentromeric		x	
	6	18S	pericentromeric		x	
	4	18S	pericentromeric		x	
	4	18S	pericentromeric		x	
	4	18S	pericentromeric, terminal		x	x
	10	18S	pericentromeric		x	
	8	18S	pericentromeric		x	
8-10	9	18S	pericentromeric		x	
	6	18S	pericentromeric		x	
	6	18S	pericentromeric		x	
	4	18S	pericentromeric		x	
	4	18S	pericentromeric		x	
	2	18S	pericentromeric		x	
	4	18S	pericentromeric, terminal		x	x
	4	18S	pericentromeric		x	
	2	18S	pericentromeric		x	
	2	18S	pericentromeric		x	
	10	18S	pericentromeric		x	
	8	18S	pericentromeric		x	
	4	18S	pericentromeric		x	
	2	18S	terminal			x
	2		pericentromeric		x	
	2	18S	interstitial	x		
	2	18S	interstitial	x		
	2	18S	interstitial	x		
	2	18S, 28S	terminal			x
	2	18S, 28S	terminal			x
	2	18S	interstitial	x		
	6	18S	pericentromeric		x	
	2	18S	terminal			x
	4	18S	terminal			x
	2	18S	terminal			x
	6	18S	terminal			x
	4		interstitial, pericentromeric	x	x	
	2	28S	pericentromeric		x	
	2	18S	terminal			x
1-2	1.5	18S	terminal			x
	2	18S	terminal			x
	2	18S	terminal			x
	2	18S	interstitial	x		
	2	28S	interstitial	x		

1-14	2	28S	pericentromeric		x	
	4	18S	terminal			x
	2	18S	terminal			x
	2	28S	terminal			x
	4	28S	terminal, microchromosome			x
	4	28S	terminal, microchromosome			x
	2		terminal			x
	2		interstitial	x		
	2		interstitial, terminal	x		x
	3	28S	terminal			x
	2	28S	terminal			x
	1	28S	terminal			x
	2	28S	pericentromeric		x	
	2	28S	pericentromeric		x	
	3	28S	terminal			x
	2	28S	terminal			x
	2	18S, 28S	interstitial	x		
	2	18S	terminal			x
	2	18S	terminal			x
	3-4	6	18S	interstitial, terminal	x	
12		18S	terminal			x
2		18S	terminal			x
2		18S	interstitial	x		
2		18S	terminal			x
4		18S	interstitial, terminal	x		x
2		18S	terminal			x
2		18S	terminal			x
4		18S	interstitial, pericentromeric	x	x	
2		18S	pericentromeric		x	
2		18S	terminal			x
2		18S	terminal			x
2		18S	terminal			x
2		18S	terminal			x
2			pericentromeric		x	
2			terminal			x
2			terminal			x
2			whole arm	x	x	x
2			whole arm	x	x	x
2		18S	pericentromeric		x	
6			pericentromeric, terminal		x	x
2		28S	pericentromeric		x	
2		28S	pericentromeric		x	
2		28S	pericentromeric		x	
2			interstitial	x		
2			interstitial	x		
2-3		2.5	18S	interstitial, terminal	x	

	2	18S	terminal			x
	2	18S	terminal			x
	6		interstitial, terminal	x		x
	2	28S	pericentromeric		x	
	2	28S	terminal			x
	4		terminal			x
2-3	4	18S	terminal, whole arm	x	x	x
	2.5	18S	interstitial	x		
	2	28S	pericentromeric		x	
	2	18S	pericentromeric, terminal		x	x
	2	18S	interstitial, pericentromeric	x	x	
	4	18S	terminal			x
3-6	2	18S	pericentromeric		x	
	4.5	18S	terminal			x
	4	18S	terminal			x
	2	18S	interstitial	x		
	2	18S	pericentromeric		x	
	2	28S	terminal			x
	2	28S	interstitial	x		
	2	28S	interstitial	x		
	2	28S	interstitial	x		
	2	28S	interstitial	x		
1-2	2	18S	interstitial	x		
	1.5	18S	terminal			x
	2		terminal			x
	2		terminal			x
	2	18S, 28S	pericentromeric		x	
	4	28S	terminal			x
	2	28S	terminal			x
	4	28S	interstitial	x		
	8	28S	terminal			x
	4		terminal			x
	2	18S	interstitial	x		
	2	18S	interstitial	x		
	2	18S	interstitial	x		
	2	18S	interstitial	x		
1-2	2	18S	interstitial	x		
	1.5	18S	terminal			x
	2	18S	terminal			x
	12	28S	terminal, whole arm	x	x	x
	2	18S	interstitial	x		
	2	18S	interstitial	x		
	2	18S				
4-8	2	18S	pericentromeric, terminal		x	x
	6	18S	pericentromeric, terminal		x	x
	2	18S	short arm	x	x	x
	2	18S	short arm	x	x	x
	2	18S	short arm	x	x	x

	2	18S	short arm	x	x	x
	2	18S	terminal			x
	2	28S	microchromosome			
	2	18S	whole arm	x	x	x
	2	18S	pericentromeric		x	
	2	18S	microchromosome			
	2		terminal			x
	2		microchromosome			
	2		interstitial	x		
	13	18S	interstitial, terminal	x		x
1-2	1.5	18S	terminal			x
1-2	1.5	18S	terminal			x
	2	28S	interstitial	x		
	2	28S	terminal			x
	2	18S	terminal			x
	2	18S	pericentromeric		x	
	2	18S				
	2	18S	terminal			x
	2	28S	interstitial	x		
	6	28S	interstitial, terminal	x		x
	2	28S	terminal			x
	2	18S	terminal			x
	2		terminal			x
	2	18S	whole arm	x	x	x
6-10	8	18S	terminal			x
	6		pericentromeric		x	
	2		terminal			x
	2		terminal			x
	2		terminal			x
	2	18S	terminal			x
2-3	2	18S	terminal			x
2-4	3	28S	whole arm	x	x	x
2-16	9	18S	terminal			x
	2	28S	pericentromeric		x	
	4	18S	terminal			x
	2	18S	terminal			x
	2	18S	terminal			x
	2	18S				
	4	18S	terminal			x
	2	18S	short arm			
	2	18S	terminal			x
1-2	1.5	18S	pericentromeric		x	
	2	28S	pericentromeric		x	
2-4	3	18S, 28S	pericentromeric		x	
	2	18S	terminal			x
	2	18S	terminal			x

	6	28S	terminal		x
	2	18S	terminal		x
	2	18S	terminal		x
	2		pericentromeric	x	
	2		terminal		x
	2	18S	interstitial	x	
	4				
	4		terminal		x
39-40	28		pericentromeric	x	
	40		pericentromeric	x	
	32		pericentromeric	x	
10-14-16	26		pericentromeric	x	
	16		pericentromeric	x	
	16		pericentromeric	x	
	36		pericentromeric	x	
	38		pericentromeric	x	
	2		pericentromeric	x	
	8		pericentromeric	x	
10-14	6		pericentromeric	x	
	12		pericentromeric	x	
	14		pericentromeric	x	
	8		pericentromeric	x	
	4		pericentromeric	x	
	8		pericentromeric	x	
	20		pericentromeric	x	
	12		pericentromeric	x	
6-18	22		pericentromeric	x	
	12	18S-28S	pericentromeric, terminal	x	x
	42		pericentromeric	x	
	6		pericentromeric	x	
	10		pericentromeric	x	
	6		terminal		x
	16		interstitial	x	
	2		pericentromeric	x	
	2	18S	interstitial	x	
	7	18S	interstitial, terminal	x	x
	8	28S	pericentromeric	x	
	8	28S	terminal		x
	2	18S	terminal		x
	2	18S	terminal		x
	2	18S	terminal		x
	2	18S	terminal		x
	6		interstitial, terminal	x	x
	3		terminal		x
	4		terminal		x
	4	28S	terminal		x
	8		terminal		x
	2	28S	terminal		x

	2	28S	microchromosome			
	2	28S	terminal			x
	2	28S	terminal			x
2-3	2.5		terminal			x
	2		interstitial, terminal	x		x
	2	18S	interstitial	x		
	2	18S	terminal			x
	2	18S	interstitial, terminal	x		x
	2	28S	terminal			x
	2	28S	terminal			x
2-5	3.5	18S	terminal			x
	2	18S	terminal			x
	2	18S	terminal			x
5-6	5.5	18S	interstitial, pericentromeric	x	x	
	5	18S	interstitial, pericentromeric	x	x	
	2	28S	interstitial	x		
2-4	3		interstitial	x		
	2	28S	interstitial, pericentromeric	x	x	
	2	18S	terminal			x
	2		terminal			x
6-18	12		pericentromeric, terminal		x	x
	2	28S	terminal			x
	4	18S	terminal			x
	2		terminal			x
	2	18S	pericentromeric		x	
	4	28S	terminal			x
	2	18S	terminal			x
	2	18S	pericentromeric		x	
	2	18S	terminal			x
	2	18S	terminal			x
	4	18S	terminal			x
	4	18S	terminal			x
	24	18S	terminal			x
	4	18S	terminal			x
2-3	2.5	18S	terminal			x
	2		interstitial	x		
	2		interstitial	x		
	4		terminal			x
4-6	2	18S				
	5	18S	terminal			x
	2	18S	terminal			x
	3	18S	terminal			x
2-4	3	18S	pericentromeric		x	
	6		terminal			x
16-18	17		interstitial, pericentromeric, terminal	x	x	x
	14		interstitial, pericentromeric	x	x	
	2		interstitial	x		
1-2	1.5		interstitial	x		
	2	18S	pericentromeric		x	

	2	18S	pericentromeric	x		
	2	18S	terminal			x
	2	18S				
	2		terminal			x
	2		pericentromeric, terminal	x		x
	2					
			terminal			x
7-8	7					
	2		microchromosome			
	2	18S	terminal			x
	2	18S	terminal			x
	2	18S	terminal			x
	2	18S	terminal			x
	6	18S	terminal			x
	2	18S	pericentromeric	x		
	2	18S	terminal			x
2-4	3	18S	terminal			x
	2	18S	terminal			x
	2	18S	terminal			x
	2		microchromosome			
	5		terminal			x
	2		microchromosome			
	2		microchromosome			
	2		microchromosome			
2-3	2.5	18S	pericentromeric	x		
	2	18S	pericentromeric	x		
	2	18S	pericentromeric	x		
	2	18S				
	6		terminal			x
	6		terminal			x
	6		terminal			x
	2	18S	whole arm	x	x	x
	2	18S	interstitial	x		
	2	18S	interstitial	x		
	2	28S	interstitial, terminal	x		x
	5	18S	interstitial, pericentromeric	x	x	
	4	18S	terminal			x
	2	18S	terminal			x
	8	18S, 28S	interstitial, terminal	x		x
	10	18S	terminal			x
8-10	9	28S	terminal			x
	2	18-26S	terminal			x
	4		terminal			x
	2		pericentromeric		x	
	2		pericentromeric, terminal		x	x
	2	18S	interstitial	x		

	2	18S	terminal				x
	2	18S	terminal				x
	2	18S	terminal				x
	2	18S	terminal				x
6-8	7	18S	terminal				x
7-8	7.5	18S	terminal				x
	2	28S	terminal				x
	2	28S	terminal				x
	2	28S	terminal				x
	4	18S	interstitial, terminal		x		x
	2		terminal				x
	2	18S	whole arm of microchromosome				
	2	18S	terminal				x
1-4	2.5	28S	interstitial		x		
	2	28S	interstitial		x		
	4	28S	interstitial, terminal		x		x
	2		terminal				x
	2	28S	terminal				x
8-10	9		terminal				x
	4	28S	terminal				x
	2	28S	pericentromeric			x	
	18	28S					
	2	28S	microchromosome				
	2	28S	terminal				x
	2		pericentromeric				
	2	18S	whole arm		x	x	x
	7						
	2		pericentromeric			x	
	2	18S	interstitial		x		
	2	18S	interstitial		x		
	2	18S	interstitial		x		
	2	18S	interstitial		x		
	2	18S	interstitial		x		
	2	18S	interstitial		x		
	2	18S	interstitial		x		
	2	18S	interstitial		x		
	2	18S	interstitial		x		
	2	18S	interstitial		x		
	2	18S	interstitial		x		
	2	18S	interstitial		x		
	2	18S	interstitial		x		
	2	18S	interstitial		x		
	2	18S	interstitial		x		
	5	18S					
	2	18S	whole arm		x	x	x
	2	28S	whole arm of microchromosome				
	2	28S	microchromosome				
	2	28S	microchromosome				
	2	18S	terminal				x
	2	18S	terminal				x
	2		terminal				x
	2		terminal				x

	2	28S	pericentromeric		x	
	4	28S	pericentromeric		x	
2-3	2.5		pericentromeric		x	
2-4	3		terminal			x
	2	28S	pericentromeric		x	
	2	28S	pericentromeric		x	
	2		terminal			x
	2		terminal			x
1-2	2	18S	terminal			x
	1.5	18S	terminal			x
	2	18S	terminal			x
	2	18S	terminal			x
	2	18S	terminal			x
2-4	3		interstitial	x		
2-3	2.5					
	2	18S	interstitial	x		
	12	28S	terminal			x
	2	28S	terminal			x
4-6	5	18S	terminal			x
	2	18S	pericentromeric	x		
	4	18S	terminal			x
2-3	2	18S	terminal			x
	2	18S	terminal			x
	2	18S	terminal			x
	2	18S	terminal			x
	4	18S	terminal			x
2-3	2.5	18S	terminal			x
	2	18S	terminal			x
	2	18S	terminal			x
	6	18S	terminal			x
	2	18S	terminal			x
	2		terminal			x
	2		terminal			x
	2		terminal			x
	2		terminal			x
	2	28S	terminal			x
	2	28S	microchromosome			
	2	18S	terminal			x
	2	18S	terminal			x
2-8	5	18S	terminal			x
	4		terminal			x
	2	18S	terminal			x
	2	18S	terminal			x
	2		pericentromeric	x		
3-13	8		pericentromeric, terminal	x		x
	2		pericentromeric	x		
	2		pericentromeric	x		
	8	18S	pericentromeric	x		
	4	18S	pericentromeric	x		
	4	18S	pericentromeric	x		

	2	18S	pericentromeric		x	
	2	18S	pericentromeric		x	
	2	18S	pericentromeric		x	
	2	18S	pericentromeric		x	
	2	18S	pericentromeric		x	
	4	18S	pericentromeric		x	
	2	18S	pericentromeric		x	
	4	18S	pericentromeric		x	
	2	18S	pericentromeric		x	
	4	18S	interstitial, pericentromeric, terminal	x	x	x
	2	18S	pericentromeric		x	
	4	18S	pericentromeric		x	
	4	18S	pericentromeric		x	
	2	18S	interstitial	x		
	2	18S	pericentromeric		x	
	4	18S	pericentromeric		x	
	2	18S	pericentromeric		x	
	4	18S	pericentromeric, terminal		x	x
	4	18S	pericentromeric		x	
	2	18S	pericentromeric		x	
	2	18S	pericentromeric		x	
	2	18S	pericentromeric		x	
	4	18S	pericentromeric		x	
	4	18S	pericentromeric		x	
	2	18S	pericentromeric		x	
	4	18S	pericentromeric		x	
	4	18S	pericentromeric		x	
	2	18S	pericentromeric		x	
	4	18S	pericentromeric		x	
	4	18S	pericentromeric		x	
	2	18S	pericentromeric		x	
	4	18S	pericentromeric		x	
	4	18S	pericentromeric		x	
	4	18S	pericentromeric		x	
	8	18S	pericentromeric, terminal		x	x
	2	28S	terminal			x
7-8	7.5	28S	terminal			x
	10	18S	pericentromeric, terminal		x	x
	2	18S				
	2	18S	interstitial	x		
	2		terminal			x
	2		terminal			x
	4	18S	interstitial	x		
	4	18S	interstitial	x		
	2	18S	terminal			x
	2	18S	terminal			x
	2	18S	terminal			x
	2	18S	terminal			x
1-2	1.5		interstitial	x		

2-4	3	18S	terminal			x
	2	18S	interstitial	x		
	2		pericentromeric		x	
	2	18S	terminal			x
	2	18S	terminal			x
	2	18S	interstitial, terminal	x		x
	2	18S	terminal			x
	2	18S	terminal			x
	2	18S	terminal			x
	2	18S	terminal, whole arm	x	x	x
	2	18S	terminal			x
	4	18S	interstitial	x		
	8		microchromosome			
	2	18S, 28S	microchromosome			
	2	18S				
	2	18S				
	2	18S	terminal			x
	2	28S	terminal			x
	6	28S	terminal			x
	42	18S	interstitial, terminal	x		x
	2		terminal			x
	2	18S	terminal			x
5-6	5.5		pericentromeric, terminal		x	x
3-4	3.5	28S	pericentromeric		x	
	2	18S	terminal			x
	12	18S	pericentromeric, terminal		x	x
1-2	1.5	18S	pericentromeric		x	
	6	18S	pericentromeric		x	
	2	18S	terminal			x
	6	18S	pericentromeric, terminal		x	x
	16	18S	pericentromeric, terminal		x	x
1-2	1.5		interstitial	x		
1-2	1.5		interstitial	x		
1-2	1.5		interstitial	x		
1-2	1.5		interstitial	x		
	6		interstitial	x		
	6		pericentromeric		x	
	14	18S	terminal			x
	2	18S	terminal			x
	2		terminal			x
	2	18S	interstitial	x		x
	6		interstitial, pericentromeric, terminal	x	x	x
	2		pericentromeric		x	
	2		pericentromeric		x	

	2		pericentromeric		x		
	2	18S, 28S	terminal				x
	2	18S, 28S	microchromosome				
	2	18S	terminal				x
	2	18S	terminal				x
4-7	5.5	18S	terminal				x
	2	18S	terminal				x
1-2	1.5	18S	terminal				x
	2	18S	terminal				x
	2	18S	terminal				x
1-2	1.5	18S	terminal				x
	2	28S	terminal				x
	2		whole arm	x	x		x
	2		terminal				x
	2		terminal				x
	4	18S	terminal				x
	2	18S, 28S	terminal				x
	2	18S	interstitial, pericentromeric, terminal	x	x		x
	2	18S	pericentromeric		x		
	2	18S	terminal				x
	2	18S	terminal				x
	8	18S	terminal				x
	4	18S	interstitial, terminal	x			x
	2	28S	pericentromeric		x		
	2	ITS	interstitial	x			
	2	ITS	terminal				x
	2		terminal				x
	2	18S	interstitial	x			
	2	28S	interstitial	x			
	2	18S	terminal				x
	2	18S	terminal				x
	2		whole arm	x	x		x
2-16	9		terminal				x
	2	18S	whole arm of microchromosome				
	2	18S	whole arm of microchromosome				
	3		terminal				x
10-50	30		interstitial, terminal	x			x
	2		terminal				x
	12						
	2	18S	interstitial	x			
	2		microchromosome				
	4	18S	terminal				x
	4	18S	terminal				x
	2	28S	terminal				x
	2	28S	terminal				x
	2	28S	terminal				x
	2	28S	terminal				x

	2	28S	terminal			x
	2	28S	terminal			x
	2	28S	terminal			x
	2	28S	terminal			x
	2	28S	terminal			x
	2	28S	terminal			x
	2	28S	terminal			x
	2	28S	terminal			x
	2	28S	terminal			x
	2	28S	terminal			x
	2	28S	terminal			x
	2	28S	terminal			x
	2	28S	microchromosome			
	2	28S	terminal			x
	4	18S	terminal			x
	2	18S	pericentromeric		x	
	2	18S	pericentromeric		x	
	8		interstitial	x		
2-4	3	18S	pericentromeric		x	
	2	18S	interstitial			
	2	18S	terminal			
	2	28S	terminal			x
	2	18S	interstitial	x		
	2	18S	terminal			x
	2	18S	terminal			x
	2	18S	terminal			x
	2	18S	interstitial	x		
	2	18S	interstitial	x		
	4	28S	terminal			x
	4	18/28S	microchromosome			
	2	18S	terminal			x
	7	18S	interstitial, terminal		x	x
	9	18S	terminal			x
	8	18S	terminal			x
	12	18S	terminal			x
	4	28S	pericentromeric		x	
	6		pericentromeric		x	
	2		interstitial	x		
	4	18S	interstitial	x		
	4		interstitial	x		
	2	28S	terminal			x
	2	28S	terminal			x
	2	28S	terminal			x
	2	28S	terminal			x
2-3	2.5	28S	terminal			x
	2	28S	terminal			x
2-4	3	28S				
	54	18S	terminal			x

	2	18S	whole arm	x	x	x
	4	18S	terminal			x
	4	28S	microchromosome			
	2		terminal			x
6-8	4		pericentromeric, terminal		x	x
	7	18S	terminal			x
	16	18S	terminal			x
	2		terminal			x
	2	18S	interstitial	x		
	2	18S	interstitial	x		
	2	18S	terminal			x
	2	18S	terminal			x
	2		terminal			x
	2	18S	terminal			x
	4		interstitial	x		
	6		interstitial, pericentromeric	x	x	
	2	18S	terminal			x
	2	18S	terminal			x
	2	18S	pericentromeric		x	
	2	18S	pericentromeric		x	
	2	18S	whole arm	x	x	x
	2	18S	terminal			x
	2	18S	terminal			x
2-3	2.5	18S	terminal			x
	4		terminal			x
	2		terminal			x
3-8	5.5		terminal			x
2-9	5.5		terminal			x
17-18	17.5		pericentromeric	x	x	
1-2	1.5	18S	interstitial	x		
	2	18S	terminal			
	2		interstitial	x		
	2	18S	whole arm			x
	2		terminal			x
	4	18S	terminal			x
	2	18S	terminal			x
1-2	1.5		pericentromeric		x	
1-2	1.5		pericentromeric		x	
	2	18S	terminal			x
	2	18S	terminal			x
	2	18S	interstitial	x		
	2	18S	terminal			x
	2	18S	interstitial	x		
	2	18S	microchromosome			
	2	18S	terminal			x
	2	18S	terminal			x

	2	18S, 28S	microchromosome			
	2	18S	terminal			x
	2	28S	terminal			x
	2	18S	whole arm	x	x	x
	6		interstitial, pericentromeric	x	x	
	2	18S	interstitial	x		
2-6	3	18S	terminal			x
2-5	3.5	18S	terminal			x
2-6	3	18S	terminal			x
	2	18S	terminal			x
4-6	5	18S	interstitial, terminal	x		x
	2	18S	pericentromeric, terminal		x	x
6-8	7	28S	terminal			x
	5	18S	interstitial	x		
	2	28S	interstitial	x		
	2	18/28S	microchromosome			
	4	18S	interstitial, terminal	x		x
	5	28S	terminal			x
	5	18S	pericentromeric, terminal		x	x
	2		terminal			x
	2		pericentromeric		x	
	2		terminal			x
	4	28S	interstitial	x		
	2	28S	interstitial	x		
2-3	2.5	28S	pericentromeric		x	
	4	28S	interstitial, pericentromeric	x	x	
8-12	10	28S	terminal			x
	4					
	2	18S	terminal			x
	2	18S	terminal			x
	4		pericentromeric		x	
	2		terminal			x
	2	18S	interstitial	x		
	2	18S	whole arm	x	x	x
	2	18S	terminal			x
	2	28S	terminal			x
	2	28S	terminal			x
	4	28S	terminal			x
	2	18S, 28S	terminal			x
	2		pericentromeric		x	
	4		terminal			x
	2		terminal			x
	2	28S	terminal			x
	2	28S	terminal			x
	2		terminal			x
	2		terminal			x
	2		terminal			x

	2	28S	terminal			x
	4	28S	terminal			x
	2	18S	terminal			x
	2	28S	terminal			x
	2	18S	terminal			x
	6		terminal			x
	4		terminal			x
	6		terminal			x
	4		terminal			x
	6		terminal			x
6-8	7		pericentromeric, terminal		x	x
	10		terminal			x
	4	18S	pericentromeric		x	
	2	18S	pericentromeric		x	
	2	18S				
	2		whole arm	x	x	x
	2		terminal			x
	4		pericentromeric		x	
	2	18S	terminal			x
	2		terminal			x
	2		terminal			x
	2		terminal			x
	2	18S	pericentromeric		x	
	2	28S	terminal			x
	2	28S	terminal			x
	2	28S	terminal			x
	2	28S	terminal			x
1-2	1.5	18S	terminal			x
2-4	3	18S	interstitial, terminal	x		x
	2					
1-2	1.5	18S	terminal			x
	2		terminal			x
	2					
3-4	3.5	18S	terminal			x
	2	18S	terminal			x
	2	18S	terminal			x
	2	18S	terminal			x
	2	18S	terminal			x
1-2	1.5					
	2					
	2		terminal			x
1-2	1.5		terminal			x
1-2	1.5	18S	terminal			x
	2		terminal			x
	2					

	2				
	2	18S	terminal		x
	2		terminal		x
2-4	3		interstitial, terminal	x	x
	2	18S	terminal		x
	2	18S	terminal		x
	2	18S	terminal		x
	2				
	2	18S	terminal		x
	2				
1-2	1.5	18S	terminal		x
	2	18S	terminal		x
	2	18S	terminal		x
	2				
	2	18S	interstitial, terminal	x	x
	2	18S	terminal		x
1-2	1.5				
	2	18S	terminal		x
	2	18S	terminal		x
	2	18S	terminal		x
	2		terminal		x
	2	18S	terminal		x
	5		terminal		x
	2	18S	pericentromeric	x	
	4	18S	terminal		x
	2	18S	terminal		x
	2	18S	terminal		x
	2	18S, 28S	terminal		x
	2	18S, 28S	terminal		x
	2	18S, 28S	terminal		x
	2	18S, 28S	terminal		x
2-5	3.5	18S	terminal		x
4-5	4.5	18S	terminal		x
2-4	3	18S	terminal		x
2-3	2.5	18S	terminal		x
2-3	2.5	18S	terminal		x
2-3	2.5	18S	terminal		x
2-3	2.5	18S	terminal		x
2-3	2.5	18S	interstitial, terminal	x	x
4-5	4.5	18S	terminal		x
4-8	6	18S	terminal		x
2-4	3		interstitial, pericentromeric, terminal	x	x
	6	18S	microchromosome		
	4	18S	pericentromeric, terminal		x
	4	18S	pericentromeric		x
	4		pericentromeric		x
	2	18S	interstitial	x	
3-6	4.5	18S	interstitial	x	
	2	18S	interstitial	x	

	4	18S	microchromosome			
	6	18S	microchromosome			
	4	28S	terminal			x
	4	18S	whole arm	x	x	x
	2	28S	microchromosome			
	2	28S	microchromosome			
	2	28S	pericentromeric		x	
2-4	3	28S	pericentromeric, terminal		x	x
	2	18S	terminal			x
	8	28S	pericentromeric, terminal		x	x
	8	28S	pericentromeric, terminal		x	x
	2	28S	microchromosome			
	2	28S	microchromosome			
	2	28S	microchromosome			
	2	18S	interstitial	x		
	4	18S	terminal			x
	4	18S	terminal			x
	8	18S	terminal			x
	4	18S	terminal			x
	2	28S	interstitial	x		
	2		pericentromeric		x	
	2	18S	pericentromeric		x	
	2	28S	pericentromeric		x	
	2		interstitial	x		
	2		interstitial	x		
	2	ITS	interstitial	x		
	2	28S	terminal			x
	2		terminal			x
	6	18S	terminal			x
	2	28S	terminal			x
	2	28S	terminal			x
	2	28S	terminal			x
	2	18S				
	4		pericentromeric		x	
3-5	4		pericentromeric		x	
	2		microchromosome			
	7	18S	interstitial, terminal	x		x
	2		interstitial	x		
	6	18S	interstitial, terminal	x		x
	4	28S	interstitial, pericentromeric	x	x	
	2	18S	pericentromeric		x	
3-5	4		pericentromeric		x	
	2	28S	terminal			x
8-12	10	18S	terminal			x
	2	18S	terminal			x
6-12	9	18S	terminal			x
	8	18S	terminal			x
4-6	5	18S				

	2	18S	interstitial, terminal	x	x
	6	18S	interstitial, terminal	x	x
	4	18S	terminal		x
	4	18S	terminal		x
	4	18S	interstitial, terminal	x	x
	4	18S	terminal		x
7-8	7.5	18S	terminal		x
5-6	5.5	18S	terminal		x
5-6	5.5	18S	interstitial, terminal	x	x
	6	18S	interstitial, terminal	x	x
	8	18S	terminal		x
	2	18S	terminal		x
	4	18S	interstitial, terminal	x	x
8-12	10	18S	terminal		x
	2	18S	terminal		x
	2	18S	terminal		x
	2	28S	interstitial	x	
	4	18S	interstitial	x	
	4	18S	terminal		x
	2	18S	terminal		x

microchromosome	rDNA chromosomes	X	Y	W	Z	B	Arrangement	C	SC
	X and A	x					unknown		
	X and A	x					1 co-localized or 2 same chromosome, o	1	1
	A						unknown		
	A						separated		
	A						unknown		
	A						unknown		
	A						unknown		
	X and A	x					unknown		
	A						unknown		
	A						separated		
	A						separated		
	A						separated		
	A						unknown		
	A						2 co-localized, others separa	1	
	A						unknown		
	A						1 co-localized, others separa	1	
	A						1 co-localized, others separa	1	
	A						1 co-localized, others separa	1	
	A						2 co-localized, others separa	1	
	A						unknown		
	un.						unknown		
	A						unknown		
	A						unknown		
	A						unknown		
	un.						unknown		
	un.						unknown		
	A						unknown		
	X and A	x					unknown		
	X and A	x					separated		
	A						unknown		
	A						unknown		
	A						unknown		
	A						unknown		
	A						separated		
	A						unknown		
	A						unknown		
	A						unknown		
	A						separated		
	Z				x		unknown		
x	A						unknown		
x	A						unknown		
	A						unknown		
	X, Y	x	x				unknown		
	A						unknown		
	A						unknown		
	X and A						1 co-localized, others separa	1	
	A						unknown		
	A						unknown		
	A						unknown		

	X and A	x		unknown	
	A			separated	
	A			separated	
	A			unknown	
	A			unknown	
	A			unknown	
	A			unknown	
	A			unknown	
	X and A	x		unknown	
	X, Y	x	x	unknown	
	X and A	x		unknown	
	A			1 same chromosome, others separate	1
x	A			unknown	
	A			separated	
	X, Y and A			unknown	
	A			same chromosome	1
	X and A	x		unknown	
	A			co-localized	
	X, Y	x	x	unknown	
	A			co-localized	
	A			1 co-localized, others separate	1
	A			2 co-localized, others separate	1
	A			separated	
	A			2 co-localized, others separate	1
	A			1 co-localized, others separate	1
	A			separated	
	A			unknown	
	A			unknown	
	A			unknown	
	A			unknown	
	A			unknown	
	A			separated	
	A			separated	
	A			unknown	
	A			unknown	
	A			unknown	
	A			unknown	
	A			unknown	
	A			unknown	
x	Z, W		x	x	unknown
	A			unknown	
	A			separated	
	A			separated	
	A			1 same chromosome, others separate	1
	un.			unknown	
	un.			unknown	
	X, A and B	x		x	separated
	A				separated
	A				separated

A and B		x	separated	
A			separated	
A			separated	
X, Y and A	x	x	separated	
A			separated	
A			separated	
A			unknown	
A			unknown	
A			separated	
A			unknown	
A			separated	
A			separated	
A			unknown	
A			unknown	
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A			unknown	
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A			unknown	
A			unknown	
A			unknown	
A			unknown	
A			unknown	
A			unknown	
A			unknown	
A			unknown	
A and B		x	c-localized, others separa	1
A			separated	
A			unknown	
A			separated	
A			separated	
A			separated	
A			unknown	
A			separated	
A			separated	
A			1 same chromosome, others separat	1
A			unknown	
A			separated	
A and B		x	c-localized, others separa	1
A			unknown	
A and B		x	1 same chromosome	1
A			unknown	
A			unknown	
A			unknown	
A			unknown	

	A			unknown
	A			unknown
	A			unknown
	A			separated
	A			unknown
	A			separated
	A			separated
	A			separated
	A			separated
	A			separated
	A			separated
	A			separated
	A			unknown
	A			unknown
	A			separated
	A			separated
	A			separated
	A			separated
	A			unknown
x	A			unknown
	A			separated
	A			unknown
	A			unknown
	A			unknown
	A			unknown
	A			unknown
	A			unknown
	A			unknown
	A			unknown
	A			unknown
	A			unknown
	A			1 co-localized, others separa 1
	A			unknown
	A			1 co-localized 1
	A			2 co-localized, others separa 1
	A			separated
	A			separated
	A			unknown
	A			unknown
	A			unknown
	A			unknown
	A			unknown
x	un.			unknown
x	un.			unknown
	A			unknown
	A			unknown
	A			separated
	X, Y and A	x	x	separated
	A			unknown
	A			unknown
	A			unknown
	A			separated or 1 at the same chromosom 1
	X and A	x		unknown
	A			unknown
	A			unknown
	A			unknown
x	A			unknown
	A			unknown

	A			unknown	
	A			unknown	
	A			unknown	
	A			unknown	
	A			unknown	
	A			unknown	
	A			unknown	
	A			unknown	
	Y and A		x	unknown	
	A			unknown	
	A			separated	
	A			separated	
	A			separated	
	A			separated	
	A			separated	
	A			unknown	
	A			unknown	
	A			separated	
	A			unknown	
	X, Y	x	x	unknown	
	X and A	x		unknown	
	A			unknown	
	A			unknown	
x	A			unknown	
	A			unknown	
x	A			unknown	
x	A			unknown	
	A			unknown	
	A			separated	
	A			1 same chromosome	1
	A			unknown	
	A			unknown	
	A			unknown	
	A			separated	
	A			separated	
	A			separated	
	A			separated	
	A			unknown	
	A			separated	
	A			unknown	
	A			same chromosome	1
	A			unknown	
	X and A	x		unknown	
	A			separated	
	A			separated	
	A			separated	
	A			separated	

	X, Y	x	x	unknown	
	A			unknown	
	A			separated	
	A			unknown	
	A			1 co-localized	1
	A			separated	
	A			separated	
	A			separated	
	A			unknown	
	A			separated	
	A			unknown	
	A			separated	
x	A			unknown	
x	A			unknown	
	A			unknown	
	A			unknown	
	X or Y	x	x	unknown	
	A			separated	
	A			separated	
	A			same chromosome	1
	un.			unknown	
	A			unknown	
	A			unknown	
	X and A	x		separated	
	X, Y and A	x	x	separated	
x	A			unknown	
	A			unknown	
	A			unknown	
	A			unknown	
	A			separated (co-localized in one po)	1
	A			unknown	
	A			unknown	
	A			1 co-localized, others separa	1
	A			unknown	
	A			separated	
	A			co-localized	
	A			same chromosome	1
	A			separated	
	A			separated	
	A			separated	
	A			separated	
x	A			separated	
	A			separated	
	A			unknown	
	A			unknown	
	A			unknown	
	A			unknown	
	A			unknown	
	A			unknown	
	A			separated	

	A			unknown	
	A			unknown	
	A			unknown	
x	A			unknown	
x	A			unknown	
	A			unknown	
	A			unknown	
	A			2 co-localized	1
	A			unknown	
	A			separated	
	A			separated	
	A			unknown	
	A			separated	
	X and A	x		1 co-localized, others separa	1
	A			unknown	
	A			unknown	
	W and A		x	2 co-localized, others separa	1
	A			separated	
	A			separated	
	A			separated	
	A			separated	
	A			separated	
	A			unknown	
	A			unknown	
	A			unknown	
	W and A		x	unknown	
	A			unknown	
	A			unknown	
	A			unknown	
	X, Y and A	x	x	separated	
	A			separated	
	X and A			unknown	
	Y and A		x	separated	
	A			separated	
	A			unknown	
	A			unknown	
	A			unknown	
	A			unknown	
	A			unknown	
	A			unknown	
	A			unknown	
	A			unknown	
	A			unknown	
	A			unknown	
	A			unknown	
	A			unknown	
	A			unknown	
	X and A	x		separated	
	A			unknown	
	A			separated	

	A				separated	
	A				separated	
	A				separated	
	X, Y	x	x		unknown	
	A				unknown	
	A				unknown	
	A				separated	
	A				unknown	
	A				unknown	
	A				separated	
	X and A	x			unknown	
	A				unknown	
	A				separated	
	A				separated	
	X and A	x			separated	
	A				separated	
	X, Y	x	x		separated	
	X	x			separated	
	X and A	x			separated	
	A and B			x	separated	
	A				separated	
	A				separated	
	A				separated	
	A				separated	
	A				separated	
	A				unknown	
	X				unknown	
	A				unknown	
	A				separated	
	A				unknown	
	A				unknown	
	A				same chromosome	1
	A				co-localized	
	A				co-localized	
	X and A	x			unknown	
	A				unknown	
	X				unknown	
	A				unknown	
	A				unknown	
	A				unknown	
	A				unknown	
	X and A	x			unknown	
	A				separated	
	A				separated	
	A				separated	
	A				separated	
x	A				unknown	
	A				unknown	
	X, Y and A	x	x		unknown	

	A				co-localized	1
	A				separated	
	A				separated	
	A				unknown	
	A				separated	
	A				separated	
	A				co-localized	
x	A				unknown	
	X and A	x			unknown	
	A				unknown	
	A				unknown	
	A				separated	
	A				unknown	
	A				unknown	
	X, A and B	x		x	2 same chromosome	1
	A				unknown	
x	A				unknown	
x	A				unknown	
	A				unknown	
	A				unknown	
	A				unknown	
	A				unknown	
	A				unknown	
	A				unknown	
	A				unknown	
	A				unknown	
	A				unknown	
	A				unknown	
	X and A	x			unknown	
	X, Y	x	x		separated	
	A				unknown	
	A				unknown	
	A				unknown	
	A				unknown	
	A				unknown	
	A				unknown	
	X, A and B	x		x	unknown	
	A				unknown	
	A				unknown	
	A				unknown	
	A				unknown	
	A				unknown	
	A				unknown	
	A				unknown	
	A				unknown	
x	A				unknown	
	A				unknown	
	A				unknown	
	A				unknown	
x	A				separated	
	A				unknown	
	A				unknown	

A	separated	
A	unknown	
A	separated	
A	unknown	
A	unknown	
A	unknown	
A	unknown	
A	unknown	
A	unknown	
A	unknown	
A	unknown	
X and A	unknown	
X and A	unknown	
X and A	unknown	
X and A	unknown	
A	unknown	
A	co-localized	
A	co-localized	
A	same chromosome	1
A	co-localized	
A	separated	
A	unknown	
A	unknown	
A	separated	
A	unknown	
A	unknown	
A	unknown	
A	unknown	
A	unknown	
A	unknown	
A	unknown	
A	unknown	
A	unknown	
A	unknown	
A	separated	
A	separated	
A	unknown	
A	same chromosome	1
A	unknown	
A	separated	
A	unknown	
A	separated	
A	unknown	
A	unknown	
A	unknown	
A	unknown	
A	unknown	
A	unknown	
A	2 co-localized, others separa	1

A			1 co-localized, others separa	1
A			2 co-localized, others separa	1
A			2 co-localized, others separa	1
A			unknown	
A			separated	
A		x	separated	
A			unknown	
A			unknown	
A			unknown	
A			unknown	
A			unknown	
A			unknown	
A			unknown	
A			unknown	
A			unknown	
A			unknown	
A			unknown	
A			unknown	
A			unknown	
A			unknown	
A			unknown	
A			unknown	
A			1 same chromosome, others separatec	1
A			separated	
A			separated	
A			separated	
A			same chromosome	1
X, Y	x	x	separated	
A			separated	
A			unknown	
A			unknown	
A			separated	
A			separated	
A			1 co-localized, others separa	1
A			separated	
A			unknown	
A			unknown	
A			separated	
X	x		unknown	
A			separated	
A			unknown	
A			unknown	
A			unknown	
A			separated	
A			unknown	
A			unknown	
A			unknown	
A			unknown	
A			separated	
A			unknown	

	A		separated	
	A		2-4 co-localized or separated	1
	A		separated	
	A		separated	
	X or Y and A	x	some population 1 co-localized or 2 colocalized	1
	A		separated	
	A		unknown	
	A		separated	
	A		unknown	
	A		1 co-localized, others separated	1
	A		unknown	
x	A		unknown	
x	A		unknown	
	A		separated	
	A		separated	
	A		unknown	
	A		unknown	
	A		unknown	
	A		unknown	
	A		unknown	
	A		separated	
	A		separated	
	A		separated	
	A		2 co-localized, others separated	1
	A		separated	
	A		separated	
	A		separated	
	A		unknown	
	A		separated	
	A		unknown	
	A		separated	
	A		unknown	
	A		1 same chromosome, others separated	1
	A		unknown	
	A		separated	
	A		separated	
	A		separated	
	A		separated	
	A		separated	
	A		1 same chromosome	1
	A		unknown	
	A		unknown	
	A		unknown	
	A		unknown	
	A		unknown	
	A		separated	
	A		separated	
x	A		unknown	
	A		unknown	
	A		separated	

	A	unknown		
	A	1 same chromosome, others separate	1	
	A	unknown		
	A	separated		
x	A	unknown		
x	A	unknown		
	A	separated		
	A	separated		
	A	separated		
	A	unknown		
	A	co-localized		
	A	co-localized		
	A	co-localized		
	A	co-localized		
	A	separated		
	A	unknown		
	A	separated		
	A	separated		
	A	unknown		
	A	separated		
	A	separated		
	A	unknown		
	A	unknown		
	A	1 same chromosome		1
	A	separated		
	A	unknown		
	A	unknown		
	A	unknown		
	A	unknown		
	A	unknown		
	A	unknown		
	A	unknown		
	A	unknown		
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	A	unknown		
	A	unknown		
	A	unknown		
	A	unknown		
	A	unknown		
	A	unknown		
	A	unknown		
	A	1 co-localized		1
	A	separated		
	A	1 co-localized		1
	A	unknown		
	A	unknown		
W and A		separated		x

	A		unknown
	A		unknown
x	A		unknown
	A		unknown
	A		separated
x	A		unknown
	A		unknown
	A		unknown
x	A		separated
	A		unknown
	X and A	x	unknown
	X		unknown
	X		unknown
	A		separated
	A		unknown
	A		unknown
	A		separated
	A		unknown
	A		unknown
	A		unknown
	A		unknown
	A		unknown
	A		unknown
	A		unknown
	A		unknown
	A		unknown
	A		unknown
	A		unknown
	A		separated
	A		separated
	A		unknown
	A		unknown
	A		unknown
	A		separated
	A and B		x . co-localized or separated 1
	A		separated
	A		unknown
	A		unknown
	A		unknown
	A		unknown
	X and A	x	unknown
	A		unknown
	A		unknown
	X	x	unknown
	A		unknown
	A		unknown
	A		separated
	A		unknown

x	A			unknown	
	A			separated	
	A			same chromosome	1
	A			1 same chromosome or separated	1
	A			co-localized	
	A			unknown	
	A			unknown	
	X, Y	x	x	unknown	
	A			unknown	
	A			unknown	
	A			unknown	
	A			unknown	
	A			same chromosome	1
	X and A	x		unknown	
	X and A			unknown	
	A			unknown	
	A			unknown	
	A			unknown	
	A			unknown	
	A			unknown	
	A			unknown	
	A			unknown	
	A			unknown	
	A			unknown	
	A			unknown	
	A			unknown	
	A			unknown	
	A			separated	
	A			unknown	
	A			unknown	
	A			unknown	
	A			unknown	
	X, Y and A	x	x	separated	
	A			separated	
	A			separated	
	A			separated	
	A			unknown	
	A			unknown	
	X and A	x		unknown	
	A			unknown	
	A			unknown	
	A			unknown	
	A			unknown	
	A			unknown	
	A			unknown	
	X and A	x		unknown	
	X and A	x		unknown	
	A			unknown	
	X and A	x		unknown	
	A			unknown	

	A		unknown	
	A		unknown	
	A		unknown	
	A		unknown	
	A		unknown	
	X and A	x	unknown	
	A		unknown	
x	A		separated	
	A		unknown	
	A		unknown	
	A		unknown	
	A		unknown	
	A		unknown	
	A		unknown	
	A		unknown	
	A		unknown	
	A		unknown	
	A		unknown	
	A		unknown	
x	A		unknown	
	A		unknown	
x	A		unknown	
x	A		unknown	
x	A		unknown	
	A and B		unknown	
	A		unknown	
	A		unknown	
	A		unknown	
	A		separated	
	A		separated	
	A		separated	
	A		separated	
	A		unknown	
	A		unknown	
	A		unknown	
	X and A		unknown	
	X and A		1 same chromosome	1
	A	x	unknown	
	A		unknown	
	A		unknown	
	A		unknown	
	A		unknown	
	A		unknown	
	A		2 co-localized	1
	A		separated	
	A		separated	
	A		unknown	

	A			unknown	
	A			separated	
	A			same chromosome	1
	A			unknown	
	X, Y	x	x	unknown	
	A			unknown	
	A			unknown	
	A			unknown	
	A			separated	
	A			unknown	
	A			unknown	
	A			separated	
	A			separated	
	X and A			unknown	
	A			unknown	
x	A			unknown	
x	A			unknown	
	A			unknown	
	A			unknown	
	A			unknown	
	A			co-localized	
	A			separated	
	A			unknown	
	A			1 same chromosome, others separatec	1
	A			separated	
	A			same chromosome	1
	X and A	x		separated	
	A			unknown	
	A			1 co-localized, others separa	1
	A			1 co-localized, others separa	1
	A			unknown	
	X and A	x		1 same chromosome, others separatec	1
	A			1 same chromosome, others separatec	1
	A			separated	
	A			unknown	
	A			unknown	
	X and A	x		unknown	
	X and A	x		unknown	
	X and A	x		unknown	
	X and A	x		unknown	
	A			1 co-localized	1
	A			unknown	
	A			unknown	
	A			separated	
	A			separated	
	A			separated	
	A			unknown	
	A and B		x	separated	
	A			unknown	
	A			unknown	

	A			unknown	
	A			unknown	
x	A			unknown	
	A			co-localized	1
	A			unknown	
	A			separated	
	A			unknown	
	A			unknown	
	X			unknown	
	X, Y	x	x	unknown	
	X, Y	x	x	unknown	
	X			unknown	
	A			unknown	
	A			co-localized	
	un.			unknown	
	un.			unknown	
	A			separated	
	A			unknown	
	A			separated	
	A			separated	
	A			separated	
	A			separated	
	A			separated	
	A			same chromosome	1
	A			unknown	
	A			1 co-localized	1
	A			separated	
	A			unknown	
	A			unknown	
	A			unknown	
	A			separated	
	A			separated	
	A			unknown	
x	A			separated	
x	A			separated	
	A			unknown	
	A			unknown	
	A			unknown	
	A			unknown	
	A			unknown	
	A			unknown	
	A			unknown	
x	A			unknown	
	A			separated	
	A			separated	
	A			unknown	
	A			unknown	
	A			unknown	

	A		unknown	
	A		unknown	
	A		unknown	
	A		unknown	
	A		unknown	
	A		unknown	
	A		unknown	
	A		unknown	
	A		unknown	
	A		unknown	
	A		unknown	
x	A		unknown	
	A		unknown	
	A		unknown	
	A		unknown	
	A		unknown	
	A		unknown	
	W and A	x	unknown	
	A		separated	
	A		separated	
	A		unknown	
	A		unknown	
	A		separated	
	A		unknown	
	A		same chromosome	1
	A		separated	
	A		separated	
	A		separated	
	A		unknown	
	A		unknown	
	A		unknown	
	A		separated	
	A		separated	
	A		separated	
	A		separated	
	A		separated	
	A		separated	
	A		separated	
	A		separated	
	A		separated	
	A		unknown	
	A		unknown	
	A		unknown	
	A		2 co-localized	1
	A		unknown	
	A		separated	
	A		separated	
	A		separated	
	A		separated	
	A		separated	
	A		separated	
	A		separated	
	A		unknown	
	A		unknown	
	A		unknown	
	A		1 co-localized	1

	A			unknown	
	A			unknown	
	A			unknown	
	A			unknown	
	A			unknown	
	A			unknown	
x	A			unknown	
	A			1 co-localized, others separa	1
	A			unknown	
	A			unknown	
	A			unknown	
	A			separated	
	A			unknown	
	X, Y	x	x	unknown	
	A			separated	
	A			unknown	
	A			separated	
	A			unknown	
	X and A	x		unknown	
	X and A	x		unknown	
	A			separated	
	A			separated	
	A			co-localized	1
	A			co-localized	1
	A			co-localized	1
	A			unknown	
	A			unknown	
	A			unknown	
	A			separated	
	A			separated	
	A			co-localized	
	A			co-localized	
	X and A	x		unknown	
	X	x		unknown	
	A			unknown	
	A			unknown	
	A			separated	
	A			separated	
	A			unknown	
	A			separated	
	X and A	x		unknown	
	X and A	x		unknown	
	A			unknown	
	A			unknown	
	A			unknown	
	A			unknown	
	A			unknown	
x	A			unknown	
	A			unknown	
	A			unknown	

x

A			unknown		
A			unknown		
A			unknown		
A			unknown		
A			separated		
A			unknown		
A			unknown		
A			separated		
A			unknown		
A			separated		
A			unknown		
A			separated / co-localized/ same chr	1	1
A			unknown		
A			unknown		
A			unknown		
A			separated		
A			1 co-localized, others separa	1	
A			unknown		
A			unknown		
A			separated		
A			unknown		
A			unknown		
X and A	x		unknown		
X and A	x		unknown		
X, Y and A	x	x	unknown		
X, Y and A	x	x	unknown		
A			unknown		
A			separated		
A			unknown		
A			unknown		
A			separated		
A			separated		
A			unknown		
A			separated		
A			separated		
A			unknown		
A			unknown		
A			unknown		
A			unknown		
A			unknown		
A			unknown		
A			unknown		
A			unknown		
A			unknown		
A			unknown		
un.			unknown		
A			unknown		
A			unknown		
un.			unknown		
un.			unknown		
un.			unknown		

A				unknown
A				unknown
A				unknown
A				unknown
A				unknown
A				separated
A				separated
A				separated
A				separated
A				separated
A				unknown
A				separated
A				unknown
A			1 co-localized, others separa	1
A				unknown
A				separated
A				separated
A				separated
A				unknown
A				unknown
A				unknown
A				unknown
A				unknown
A				unknown
A				unknown
A				unknown
A				unknown
A				unknown
A				unknown
A				unknown
A				unknown
A				unknown
X				unknown
A				unknown
A				unknown
X				unknown
A				unknown
A				unknown
A				unknown
A				unknown
A				unknown
X				unknown
A			x	unknown
A				unknown
A				unknown
X or A				unknown
X or A				unknown
A				unknown
X, Y		x	x	unknown

	A			unknown	
	A			unknown	
	X, Y	x	x	unknown	
	X, Y and A	x	x	unknown	
	A			unknown	
	A			unknown	
	A			unknown	
	A			unknown	
	A			unknown	
	A			unknown	
	X			unknown	
	A			unknown	
	A			unknown	
	A			unknown	
	A			unknown	
	X, Y or A	x	x	unknown	
	A			unknown	
	X, Y	x	x	unknown	
	X, Y	x	x	unknown	
	A			unknown	
	A			unknown	
	A and B			x	unknown
	A				unknown
	A			1 same chromosome, others separate	1
	A			unknown	
	A			unknown	
	A			unknown	
	A			unknown	
	A			unknown	
	A			unknown	
	W and A		x	co-localized or separated	1
	Z, W and A		x	x	co-localized
	W and A		x	1 co-localized, others separate	1
	W and A		x	co-localized or separated	1
	W and A		x	1 co-localized, others separate	1
	W and A		x	separated	
	W and A		x	separated	
	W and A		x	1 co-localized, others separate	1
	W and A		x	0 co-localized, others separate	1
	W and A		x	unknown	
	A			separated	
x	A			unknown	
	A			unknown	
	A			unknown	
	A			unknown	
	A			unknown	
	A			unknown	
	A			unknown	
	A			1 same chromosome, others separate	1

S	Reference	5S chromosome	45S chromosome
	455	sex ch.	sex ch.
1	455, 570, 655	st, a	m, st, a
	448		st
1	287, 448		st
	448		a
	448		st
	438, 653		h
	418	sex ch.	sex ch.
	641		a
1	35	a	a
1	35	a	a
1	162	st, a	st, a
	211		m, sm
1	147		
	94		
1	147, 517, 609	a	a
1	147		
1	94, 95, 147		sm
1	147		
	619		sm
	576		st
	518		st
	518		st
	518		st
	576		m
	576		st
	206		
	88, 206	sex ch.	sex ch.
1	96	sex ch.	sex ch.
	258	a	st
	644		a
	465		m
	239	a	st, a
1	97	m	a
	597		h
	464		h
	464		h
1	1	m	sm
	378		
	378		micro.
	378		micro.
	168	a	st
	598		sex ch.
	633		m
	111	st	st
1	568	m, st, a	m
	169		
	169		m
	88		

	88	sex ch.	sex ch.
1	599	sm	m, sm
1	103		
	332		
	332		
	332		
	332		
	243	sm	
	653		h
	388	a, sex ch.	a
	597		h
	261, 452	sex ch.	t, a
1	429, 461	a	a
	234		micro.
1	571	a	m, sm
	555	sm	
	101	st, a	st, a
	88	sex ch.	sex ch.
	98	sm	a
	522, 618	sex ch.	sex ch.
	367		sm
1	611	m, sm, st, a	sm, st
1	36	m, a	a
1	36	m	m
1	36	m, sm	sm
1	572	m, sm	sm
1	656	st	a
	327		h
	327		h
	327		h
	327		h
1	288	a	sm
1	438		
	378		
	234, 378		sm
	234, 378		sm
	395		st
	253		h
	653		h
	395		a
	334		sex ch.
	366		sm
1	305	m, sm	m, sm
1	99, 305	m, sm	st
1	128, 171	st	st
	573		m
	574		m, sm
1	37	m, sex ch.	a
1	37	a	a
1	37	a	a

1	37	a	a
1	37	a	a
1	37	a	a
1	37	a	a, sex ch.
1	575	m	m, sm
1	575	m	m
	172, 173		sm
	253		h
1	60, 102	t	st, t
	537		
1	605	a	a
1	158	a	a
	358		a
	358		a
	358		a
	358		a
	17		
	17		st
	395		st
	17, 395		st
	17, 395, 612		st
	309		
	309, 612		sm
	438, 653		h
	388	micro.	a
	454		a
	325		a
	183		a
	417		m, a
	417		
	268		st, a
1	174, 239	m, sm, t, a	t, a
1	162, 239	m, a	m, sm
	161		sm
1	520	sm, st	a
1	39, 524, 657	sm	m, st, a
1	524	sm	st
	419, 520, 525	sm, a	sm, a
1	38, 524	sm	sm, st
1	159	m, a	st, a
1	520	m, sm	m, sm, st, a
	267, 526	m, a	
1	524	sm	a
1), 526, 527, 613, (m, a	sm, st, a
	167	st, a	
	175	a	st, a
	167	a	
	529		sm
	176	a	sm, a
	9, 527	m	m, a

	657		
	587, 629	m, st, a	st, a
	167	m, a	
1	291, 420	m	m, sm, st, a
	530	a	a
1	, 85, 328, 335, 52	m, a	m, a
1	526, 527, 657	m	m, a
1	524	sm	sm, st
1	143		
	653		h
1	40	st	sm
	433		a
1	449	m, sm	m, sm
	576		m
	576		m
	421		m
	576		m
	422	sex ch.	
1	296	st	st
	47		st
	480		sm, a
	480		sm, a
	443		sm, a
1	242		m
	320		st
	395		sm
1	485	sm	sm
	424	m	m
1	425	st, a	st
1	425	st, a	st, a
1	101	st, a	st, a
	427	sex ch.	sex ch.
	427	sex ch.	sex ch.
	427		
	427		
	427	sex ch.	sex ch.
	427		
	427	sex ch.	sex ch.
	427		
	268		m, sm
	351		st
	351		st
	354, 428		micro.
	354, 428		micro.
	354		micro.
	597		h
	388		
	413		
	351		st
	351		

	351		st
	351		st
	351		
1	558	sm	sm
	205		
1	614	m, sm	st
1	614	m, sm	st
1	614	m, sm	st
1	614	m, sm	st
1	2	t	t
1	2	t	t
	623		m
	42		
1	600	st	st
1	104	a	t
1	104	sm, a	t
1	678	st	st
	236	a	a
	623		micro.
1	105, 179	sm	st
	105	sm	
	105	sm	
	105	sm	
	105	sm	
	105	sm	
	105	sm	
1	578		sm, st, a
	604		sm
	160, 180	a	sm, st, a
1	578		m, sm, a
1	160	sm	st
1	160	a	st
	351, 615		sm, a
	615		sm, a
	410		
	634		micro.
	634		micro.
	388		sm
	388		sm
1	162	st, a	m, sm
1	430	m, a, sex ch.	sm
	161		sm
	381, 383		
	387		sm
1	353, 547	sm	sm
	88	sex ch.	sex ch.
	88		
	378		
	378		micro.
	623		m

	623		sm
	623		sm
	623		sm
	623		sm
	610		a
	610		a
	579	m, sm, st, t	sm
	579	m, sm, st, t	sm
	579	m, sm, st, t	sm
	243, 391, 397	t, a	sm, a, sex ch.
	181		sm, st, a
1	143		
1	162	st, a	st, a
1	318	a	a
1	318	a	a
1	297, 318	a	sm
	3, 77, 264		
	117, 432	sm, st	
1	533	sm	sm
	514		
	24		sex ch.
	24		a, sex ch.
	395		st
	211		m, sm
	182		m
	669		micro.
	169		
	434		micro.
	434		micro.
	499		
1	289		
	452		
	119		
	390		a
	653		h
1	435	a	a
1	435	a	a
1	107		st
1	107	a	a
	395		
1	184		
	185		st
	351		
	339	m	m
	186		
	186		sex ch.
1	187		st, a
1	162	st, a	st, a
1	239, 580	a	a
1	436	a	sm

	616		sex ch.
	400		
1	289		
	205		
	437	st, a	st, a
1	437	st, a	sm
1	437	st, a	st
1	364	sm	sm
	234		sm
1	429, 461		
	298		sm, a
1	44	a	a
	188		sm
	560		micro.
	560		micro.
	378		
	253		h
	635		sex ch.
1	271, 581	m	m
1	452		
	4		st
	670		
	234, 378		sm
	598		
1	78, 143		m, sm, sex ch.
1	78, 143		m, sm, sex ch.
	354		micro.
	45, 93, 264, 409	sm, a	m, a
	45, 109	sm	
	532		m, a
1	45, 93, 264, 409	sm	st
	45, 93, 264	sm	sm, st
	45, 109	sm	
1	110		m, a
	439		sm
1	189	st	a
	440, 582	sm	sm
	569	m	m
1	569	m, sm	sm
1	569	sm	m, sm
1	283	a	sm
1	283	a	sm
1	286	a	micro.
1	46, 190	m	m
	190		m
	190, 336	m	m
	190		m
	190		m
	190		m
1	47		m, sm, st

	24		
	387		sm
	387		sm
	378		micro.
	234, 378		micro.
	234, 378		sm
	359		
	219	sm, t	sm
	211		m, sm
1	307	a	m
1	307	a	m
	617		
1	33	st	a
1	337	sm, sex ch.	sm, sex ch.
	583		
	359		
1	338	a	a, sex ch.
1	5, 442	m, sm	m, sm
1	5, 442, 658, 659	m, sm	m, sm
1	442	m, sm	m, sm
1	442	m, sm	m, sm
1	442	m, sm	m, sm
	443		a
	77, 111		st
	633		m
	81		a, sex ch.
	154, 155, 382, 38	sm	sm
	423		a
	633		m
1	79, 143		m, sm, sex ch.
1	143		
	79		m, sm, sex ch.
1	78, 143		sex ch.
1	135		sm
	444		a
	444		sm
	444		a
	444		a
	597		h
	597		h
	597		h
	395		st
	395		st
	395		st
	84		a
	192, 395		m
	267		a
1	78, 143, 246		a, sex ch.
	395		m
1	244	a	a

1	244	a	a
1	86	st, a	st, a
1	86	st, a	st, a
	508	sex ch.	sex ch.
	598		
	508		
	610		a
1	143		
	211		m, sm
	193	sm	sm
1	193	sm	sm
	193	sm	sm, sex ch.
	193	sm	sm
1	113, 193	sm	a
1	193	sm	sm
1	193	sm	sm, sex ch.
1	193	sm	sm
1	193	sm	sex ch.
1	193	sm	sex ch.
1	193, 321	sm	sm, sex ch.
1	193, 321, 660	sm	m, sm
1	193	sm	sm
1	585		
1	585	t	t
1	585		
1	585	t	sm, t
	206		
	592		sex ch.
	192, 395		m
1	194	a	a
	331		sm
	378		
	388	sm	
	195	m	m
	195	m	m
	418	sex ch.	sex ch.
	211		m, sm
	586		sex ch.
	211		m, sm
	211		m, sm
	211		m, sm
	206		
	88, 206	sex ch.	sex ch.
	414, 636	a	sm
	636	a	a
1	285, 364	a	sm
1	364	sm	m
	669		micro.
	404		
	349, 350, 405		sex ch.

	653		h
	653		h
	653		h
	80		sm
	596	a	a
	653		h
	653		h
	653		h
	211		m, sm
	211		m, sm
	445		st, a
	368		st, a
	368		st, a
1	562	a	a
	82		st, a
	223		sm
	330		micro.
	378		micro.
	378		micro.
	196	sm	sm
	514		micro.
	401	m, sex ch.	m
	48	sm, a	
	48	sm, a	
	597		h
	197		m, sm
	617		
	198		sm
	245		sm
	245	t	sm
	198		sm
	431		m
	211		m, sm
	253		h
	428		micro.
	428		micro.
	428		micro.
1	114	t	a
	114, 199	a	sm
	446		
	114, 200	a	a
	395		sm
	395		a
	403		
	592		sex ch.
	454		sm, a, sex ch.
	201		sm
1	115	m, sm	m, sm
1	116, 628	a, sex ch.	a, sex ch.
	456		a

	542	a	a
1	542	a	a
1	239		m, sm
	205		
1	106	a	a
1	106	a	a
	106	a	a
	669		micro.
	431		a, sex ch.
	431		a
	431		a
1	244	a	a
	88		
	447		st, a
	453	a, sex ch.	a
	395		
	354		micro.
	354		micro.
	561		
	561		
	561		
	561		
	561		
	561		
	561		
	561		
	561		
	561		
	653		h
1	143, 299		sex ch.
	331		m
	331		m
	331		m
	653		h
	653		h
88, 202, 203, 206, 4		t	t, sex ch.
	202		a
	380		a
	204		
	380		a
	597		h
	495		sm
	495		sm
1	108	st	m, sm
	598		
	127, 384	a	micro.
	378		
	492		
1	450	a	micro.
	183		sm
	451	a	a

1	162, 239	t, a	m, sm
	239		
1	600	m	m, st, t
	610		a
	536	sm	sm
	536	sm	sm
	536	sm	sm
	536	sm	sm
	536	sm	sm
	536	sm	sm
	536	sm	sm
	17, 395		st, a
	559		a, sex ch.
	559		a, sex ch.
	559		a, sex ch.
	559		a, sex ch.
	514		
	6		
	357		sm
	357		sm
	357		sm
1	118		st, a
	240	m	
	610		a
1	401	st	micro.
	169		m
	457		
	457		
	266		m
1	595	st	st, a
	445		st, a
	207		
	445		st, a
	445		st, a
	445		st, a
	208		sm
	445		st, a
1	322		st
1	49	m, sm, st	m
	638	a	m, a
	49	m, sm, st	m
	209	m	
1	49	m	m
	209	m, a	
1	49	m	m
	210		m
	120	a	a
	120	a	a
	120	a	a
1	531	a	a

1	531	a	a
1	531	a	a
1	531	a	a
	329		sm
1	121	sm	sm
1	7	a	st, a
	653		h
	211		m, sm
	211		m, sm
	211		m, sm
	211		m, sm
	211		m, sm
	211		m, sm
	211		m, sm
	211		m, sm
	211		m, sm
	211		m, sm
	211		m, sm
	211		m, sm
	211		m, sm
	211		m, sm
	211		m, sm
1	213, 544	m, a	a
1	544	m	a
1	544	sm	m
1	544	sm	a
	167, 222, 544	a	a
1	212	sex ch.	sex ch.
1	544	m	a
	9	m	st, a
	590	m	st
1	319		st
1	319		st
1	319		m
1	319		st
	239		st, a
	464		h
1	122	st	st
	407		sex ch.
1	628	m	m, sm, a
	239, 268	t, a	st, a
	88		
	431		a
1	123	st	st
	124		
	358		a
	378		
	234, 378		sm
	378		
1	438, 624, 653		h
	191, 240, 379	m	a

1	162	st, a	m, sm
1	, 214, 459, 628, 6	m, sm, st, a	m, sm, st, a
1	628	sm	sm
1	628	sm	sm
1	51, 546, 621, 628	m, sm, sex ch.	m, sm
1	547, 608	st, a	st, a
	597		h
1	112	m, st	m
	45, 269	sm, st	sm, st
1	147, 292		m
	290		sm
	548		micro.
	548		m, st, micro.
1	306	sm	m, sm
1	306, 460	m, sm	sm, a
	267		m, sm
	267		
	604		sm
	169		m
	167, 222, 672	m, st, a	m, a
1	632, 662, 672	m	st, a
1	16, 622, 662, 672	m, st	m, sm, st, a
1	662, 672	sm, st, a	a
1	662, 672, 674	m, st, a	st, a
1	662, 672	m, st, a	a
1	622	m	sm, a
1	662, 672	m, st, a	a
	632		st
1	632	m	st
	632		st
1	662	m	a
	216, 672		st, a
1	663		st, a
	249		st
1	i, 216, 632, 662, 672	m	a
1	216, 662, 672	m, st, a	st, a
1	622, 662, 672	m, sm	m, a
1	162	m, sm	m, sm
1	162	m, sm	m, sm
	438, 653		h
	653		h
	217		m
	217		st
	268		m, sm
	566		a
1	218	a	a
1	218	a	a
	477		micro.
	623		sm
1	364, 549	sm	sm

	311		a
	311		a
	311		a
	311		a
	311		sex ch.
	311		a
	311		a
	311		a
	311		a
	311		sex ch.
	311		a
	311		a
	311		sex ch.
	311		a
	311		a
	311		a
	311		a
	311		a
	311		a
	311		a
	311		sm
	311		a
	311		a
	311		a
	311		a
	311		a
	311		a
	311		a
	311		a
	311		a
	311		a
	464		h
	366		sm
1	429, 461	a	a
1	429, 461	a	a
	464		h
	623		m
	623		sm
	249		st
1	289		
	268		st, a
	521	m	m
	239	t, a	st, a
	467		
	515		sm, a
	392		a
	469		a
	545		st
	545		sex ch.
1	625	a	a
1	625	a	a
	508		
	395		sm

	395		a
1	128, 171	st	st
	211		m, sm
1	485	a	a
	234		micro.
	234		micro.
1	54		
1	54		
1	341	sm	m
	371		
	357		sm
	357		
	357		a
	357		a
1	449	m, sm	m, sm
	247		m
1	12	m, sm	m, sm
1	521	sm	m
	89, 129	m, sm	
1	521	m	m
1	89, 521	m	m
	89	m, sm	
	129		
	521	m	m, sm
1	547	st, a	st, a
	470		
	343		h
	343		h
	343		h
	644		sm, a
	644		sm
	644		a
	644		m
	590	m	st
	438, 653		h
	438		
	653		h
	492		st, a
	492		
	492		
	471		a
	471		a
	491		a
	468		sm, a
	130	m	st
1	130	st	sm
	130	st	st
	472	a	a
	472	a	a
1	473	st	sm, sex ch.

	249		m
	248		sm
1	13, 206		
	395		a
	395		st
	309		
	510	a	a
	344		m
	308		sm, a
1	556	sm	st, a
	342		sex ch.
	342		sex ch.
	475	a	a
1	68, 284	a	a
1	68, 284	a	a
1	475	a	a
	566		a
1	68, 284	a	a
	250		
	250		
	250		
	250		
	250		a
	651		h
	178		sex ch.
	241	sm	
	389		sm
	251		a
1	558	st	st
	360, 476		m
	476		m
	395		sm, a
	395		sm
1	482	a	st, a
	597		h
	597		h
	597		h
	597		h
	597		h
	597		h
	438		
1	14	sm, a	sm
	253		h
	253		h
	646		
	610		a
	610		sm, a
	610		
	610		
	610		

	610		
	610		sm
	234, 378		micro.
	620		sm
1	632	sm	st
	560		micro.
	239		st, a
	16		m
1	286	a, micro	micro.
	553		sm
	597		h
	592		sex ch.
	592		sex ch.
1	534	a	a
	396	a	
	239	t, a	t, a
1	485	a	a
	426		a
	610		a
	268		st, a
	268		st, a
	268		st, a
	633		m
	633		m
	633		m
1	528	st	st
1	90		
	639		st, a
1	478	st	m, st
	24		
	131		
1	59, 538	st	st
	510	a	a
	443		sm
	163, 479		m
1	557	st, a	sm, st, a
1	483, 505	m, sm	sm
1	558	m, st	a
	254		a
	254		a
	254		sm
	610		a
	610		a, sex ch.
	610		a
	610		a
	610		sex ch.
	395		a
	252, 602		a
1	438		
	438		

	395		
	224		a
1	91, 225	m	m
	31	a	a
1	91	sm	
	225		a
	245		
	221		sm, st, sex ch.
	375		a
	375		a, sex ch.
	375		a
	375		a
	375		a
	55	a	
	375		a
	375		a
	375		a
	393	a	a
	375		a
	55, 375		a
	375		a
	375		a
	375		a
	393	a	a
	375, 376	a	a
	375, 376	a	a
	393, 394	a	a
	15, 55, 375, 376, 393	a	a
	375		a
1	55	a	
	375		a
	375, 394	a	a
	375		a
	83		
	464		h
	9	m	st, a
	271	m	
	271	m	
	395		a
	395		
1	319		st
1	226	sm	sm
1	319		st
1	319		st
	251, 642	sm	sm
1	132	m	m, st
1	132	m	m, st
1	600	m	sm, st
1	251, 642	m	m, sm
	369		

	378		micro.
1	485	a	sm
	485	sm	sm
1	486	sm, st	sm, a
	219	sm	sm
	167, 222	sm	sm
	597		h
	630		sex ch.
	234, 378		sm
	378		
	259		
	211		m, sm
	625	a	a
	454		a, sex ch.
	559		a, sex ch.
	395		a
	255		
	266		sm
	597		h
	251		sm
	243	t	
	487		sm
	395		a
	253		h
	56, 223		sm
1	68	a	a
	351		
	211		m, sm
	256		
	256		
	604		st
1	438	sex ch.	sex ch.
1	488		
1	488		
1	488		
	257		sm
	88		
	88	sex ch.	sex ch.
	88		
	651		h
	57, 260, 374	a	a
	374	a	a
	374	a	a
	647		sm
	84		a
	88, 206	sex ch.	sex ch.
	88	sex ch.	sex ch.
	88		
	206		sex ch.
	29	st	m

	29	sm	st
	597		h
	651		h
	170		m
	45, 269	sm, st	sm
	45, 141, 385	a, sex ch.	
	45		
1	143		
	143		
	548		micro.
	463	sm	
	463	sm	
	211		m, sm
	211		m, sm
	211		m, sm
	211		m, sm
	211		m, sm
	227		m
	227		m
	227		m
	227		a
1	652	st	sm
	477		micro.
	477		m
	477		micro.
	477		micro.
	477		micro.
	489		a
	489		sm
	489		a
	268		st, a
1	92		
1	92		st, a
1	32, 239	t, a	st, a
1	603	sm	sm
	253		h
	253		h
	363		sm
	559		a, sex ch.
	452	sex ch.	sex ch.
	9	m	st, a
	637		
	133	st	
	253		h
	351		
	228		m
	157, 219	sm, t	sm
1	194	a	sm, st
1	194	a	sm, st
	464		h

	418		
	240	m	
	191, 240	m	a
	563	sm	sm
1	563	m	m
	592		
	592		
	592		
1	490	a	sm
1	485	sm, a	a
	485	a	a
	70	st	
	88, 206		
	268		m, sm
1	53	a	a
	205		
	205		
	443		sm, a
	559		a, sex ch.
	559		a, sex ch.
	454		a, sex ch.
	559		a, sex ch.
	559		a, sex ch.
	559		a, sex ch.
	559		a, sex ch.
	559		a, sex ch.
	454		a, sex ch.
	561		
	561		
	561		
	561		
	561		
	561		
	317		sm
	443		sm, a
	491		a
	491		a
	491		a
	633		m
1	41	sm	st
	249		m
	564		
	564		
	564		
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	564		
	564		
	305, 666	m, sm	

1	58		st
1	58		st
	211		m, sm
	211		m, sm
	565		sm
	565		sm
	357		sm
	357		sm
	357		sm
1	258, 481	a	st
1	59, 538	t	sm
	334		sex ch.
	514		
	643		sm, a
	643		sm
	643		
	310		sm
1	600	sm	sm
	24		
1	61	st	st
1	364	sm	a
	645		
	378		micro.
	485	st	st
	88, 206		
	620		sm
1	143		
	164		m
	561		
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	617		
1	567	sm	st
	234, 378		micro.
	378		micro.
	378		micro.
	438, 653		h
	17		a
	366		sm
	366		sm

	164		a
	493		m, sm
	164		a
	164		m, sm
	493		sm
	493		a
	295		sm
	295		sm
	178		
	178		sex ch.
	17, 395		m
	17		m
	17, 395		m, a
	229, 539	sex ch.	m, sm
	230	sm	sex ch.
	508		
	485	sm, a	sm, a
1	485	st	st
1	9, 640	m	st, a
	18		sm
1	271	m, sm	m
	253		h
	253		h
	232		sm
	19		sm
	19		sm
1	494, 626	m, sex ch.	sm, sex ch.
	19		sm, a
	19		sm, a
1	19		sm, a
1	339	sm, st	sm
	43	a	st
1	233	m, sm	a
1	233	m, sm	a
1	233	m, sm	a
	395		a
	378		micro.
	340		a
	340		a
1	554	sm	sm, a
	408		m
	426		
	17		st
1	137	a	a
	402		a, sex ch.
	496		sm
	496, 514		sm
	311		a
	311		a
	311		a

	311		a
	311		a
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	311		a
	311		a
	358		a
1	135		
	588	sm	sm
	253		h
	253		h
1	62	sm	m
	138	m, sm	m, sm
	20		a
	20		
	240	m	
1	101	m	st, a
1	441, 516	a	a
1	441, 516	m	m
1	441, 516	m	m
	24		sex ch.
	235	m	

	139	m	m
1	64	sm	sm
	63	m	m
	438		
	592		sex ch.
	497	sm	
	501	st, a	
	501	st, a	
1	319		m
	211		m, sm
	211		m, sm
	211		m, sm
1	65, 627	m, sm, st	sm, a
1	43, 65	st	sm, st
	559		a, sex ch.
	239		
	519		micro.
	669		micro.
	324		sm
	324		sm
	324	sm	sm
1	485	m, st	sm
	395		
1	162	m, sm	m, sm, st, a
1	162	st, a	m, sm
	632	sm	sm
1	21	a	a, sex ch.
	433		a
1	607	a	a
1	607	a	a
	165, 166	m, st	
1	667		
1	667		
1	648	a	a
	270		a
	66	a	a
	388		sex ch.
	388	sm	sex ch.
	388	sm	sex ch.
	388		sex ch.
	22	sm, a	a
	375, 377		a
	239	t, a	st, a
1	589	st	st
1	589	st	sm
1	67, 339	sm	m
	339	sm, st	sm
1	30, 206, 261		t, a
	261		t, a
	261		t, a

	261		t, a
	623		m
	669		micro.
	632	m	m
	100	a	
1	355	m	st
	263		
	262		st
	592		sex ch.
	592		sex ch.
	592		sex ch.
	592		sex ch.
	395		a
	68	st, a	st, a
	650		
1	650		
1	521	sm	m, sm
	623		a
1	498	st, a	sm
1	498	st, a	m
1	265	m	st
1	498	a	sm
1	498	st, a	sm
	326	a	a
	395		sm
	69, 285, 364	sm	sm
1	69, 285, 364	sm	sm
	161		sm
	566		a
	395		m
1	142		sm
1	142		sm
	45, 302, 303, 411		m
	45, 134, 304, 411, 412		st
1	362	micro.	micro.
1	362	micro.	micro.
	45, 300, 301	a	sm
	45, 300		
	45, 269, 345	a	m, sm
	45, 170, 300	a	sm
	45, 300	a	
	591		h
	293	sm	
	434		micro.
1	239, 502	st, a	st, a
1	502	st, a	sm, st
	378		
	378		
	234, 378		sm
	234, 378		sm

	378		
	234, 378		sm
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	234, 378		
	378		
	378		
	378		
	234, 378		sm
	378		micro.
	378		
	499		
	333		m
	333		m
	523		sm
	500	sex ch.	sex ch.
1	563	m	m
1	563	m	m
	237		m, sm
	464		h
1	504	st, a	st, a
	270		sm
	270		sm
	63	m, sm	m
1	63	m, sm	m
1	485	sm, a	sm
1	594	micro.	
	9	m	st, a
	71	sm	
	9	m, sm	m, sm, st, a
1	72	m	a
1	72	m	st
1	72	m	m
1	558	st	st
	202		a
	206		
	316	t	t
	272		
1	485	sm, a	sm
1	485	st	sm
1	485	sm, a	a
1	485	a	a
1	485	sm, a	sm, a
1	485	st	st
	485		
	144	m, sm	
	144	m, sm	
	521	sm	m, sm

	144	m, sm	
	144	m, sm	
	144	m, sm	
	144	m, sm	
	620		sm
	443		a
	378		micro.
1	145	sm, a	sm
	416		st
	273		a
	273		a
1	43, 668	sm	st
	431		a
	431		sex ch.
1	315	st, a	st, a
	653		h
1	146	t	sm, a
	294		sm
	88, 206	sex ch.	sex ch.
	88, 206	sex ch.	sex ch.
1	33	m	sm
1	33	sm	sm
	577	a	a
	577	a	a
	577	a	a
	506		
	506		
	506		
1	482	m	sm, a
1	482	m	sm
	73, 98	sm	a
	73, 98, 501	sm, st, a	sm, a
	88, 206	sex ch.	sex ch.
	514	sex ch.	sex ch.
	274		sm
	274		sm
1	34	st	a
1	43		sm
	442	m, sm	m, sm
1	5, 442, 658, 659	m, sm	m, sm
	206		sex ch.
	88, 206	sex ch.	sex ch.
	211		m, sm
	508		
	508		
	317		sm
	317		sm
	514		micro.
	314		a
	314		sm

	669		micro.
	17, 395		st
	395		st
	620		a
1	231	a	m, a
	205		
	25		m, sm
1	25, 162	m, sm	m, sm
	25		m, sm, st, a
1	275	a	a
	275		m, a
1	312, 323	a	m, st, a
	351		
	259		
	395		a
1	594	micro.	
1	66	a	a
	363		sm
	262		st
1	150	m	st
	276		sm
	277	a	
	277	sex ch.	a, sex ch.
	277	sex ch.	sex ch.
	277	sex ch.	a, sex ch.
	277	sex ch.	sm, sex ch.
	351		
1	242		m
	590	m	sm
	590	sm	st
1	140		
1	398		
	464		h
1	531	a	sm
1	101	st, a	st, a
	234		sm
	378		
	378		
	654		t
	202		a
	399		sm
	26	m, a	m, sm
	239		
	239		st, a
	650		
	509, 650		
	606		h
	650		
	650		
	650		

	313		h
	606		h
	17		a
	395		a
	344, 510	a	a
1	148	st	st
1	74	sm	sm, st
1	74	sm, st	sm, st
1	74	sm	sm, st
1	148	st	m, st, t
	87, 148	st	m, sm, t
1	148	st	st, t
	331		sm, a
1	631	t	t
	514		
1	535	a	a
1	535	a	sm
1	535	a	a
	17		st
	366		sm
	366		sm
	366		sm
	507	sm	m
	157	sm	
	359		
	359		
	157	sm	
	157	sm	
	157	sm	
	359		
	356		
	512		
	592		sex ch.
	23, 592		h
	512, 592		
	592		sex ch.
	512		
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	592		sex ch.
	592		
	592		
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	592		
	511, 592	sex ch.	sex ch.
	511		
	512		
	23, 592		h
	592		sex ch.
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	512	sex ch.	sex ch.

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	592		
	512, 592	sex ch.	sex ch.
	23, 512, 592		h, sex ch.
	592		
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	592		sex ch.
	592		
	512, 592		
	365		
	23, 592		h
	592		
	511, 592	sex ch.	sex ch.
	592		
	512, 592	sex ch.	sex ch.
	592		sex ch.
	512		
	512, 592		
	156		
	346		sm
1	169, 373	a	a
	169		m
	169		
	623		sm
	623		a
	623		sm
	623		a
1	75, 372, 593	a	sm, sex ch.
	75, 372	sm	a, sex ch.
1	75, 372, 593	sm, a	sm, sex ch.
1	75, 372, 593	a	sm, sex ch.
1	75, 149, 372, 593	sm	sm, sex ch.
1	593	a	a, sex ch.
1	593	a	sm, sex ch.
1	75, 372, 593, 645	sm	sm, sex ch.
1	75, 372, 593	sm	sm, a, sex ch.
	278		m, st, sex ch.
1	27	a	sm
	584		micro.
	458		a
	458		a
	206		
	88		
	279		sm
	279		sm
1	429, 461	m	m

	347		micro.
	347		micro.
	406		sm, t
1	162	m, sm	m, sm
	378		micro.
	378		micro.
	280		sm
	280		sm
	167, 222	sm	m
	395		
	395		st
	378		micro.
	378		micro.
	234, 378		micro.
	561		
	426		a
	426		a
	426		a
	426		sm, a
	395		sm
1	540	sm	sm
	466		m
	378		
1	540	sm	m
1	150	st	m
1	285	a	sm
1	364	sm	a
1	285, 364	sm, st	sm
	515		sm, a
	281		
	281		
	281		
	617		
	243	sm	
	28		a, sex ch.
	28		a, sex ch.
	513		micro.
1	543	sm	sm
	151, 152, 153, 541		a
1	543	sm	sm
1	601	m, sm	m
	236, 282	a	a
	136		
	30		sex ch.
	348		h
	177		
	177		
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