

The Algae of New Jersey (U.S.A.)
I. Chrysophyta (Yellow-Green Algae)
A. Xanthophyceae, Chrysophyceae and Prymnesiophyceae

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The first comprehensive list of the known species of algae in the state of New Jersey was Britton's Preliminary Catalogue of the Flora of New Jersey (1881). Wolle (1880, 1881, 1882 and 1883) published notes on the algae of the United States, and eventually a book on the same subject (1887) and collections made in New Jersey are mentioned frequently. In 1889, Britton issued The Catalogue of Plants Found in New Jersey which summarized both published and unpublished information available to Britton. This work is primarily bibliographic and addresses the taxonomy, classification and distribution of all plant species, algae and fungi included, known from New Jersey.

The present series of papers is an attempt to update this catalogue. Particular care has been given to minimizing the turmoil of taxonomy, especially of the blue-green algae and the diatoms.

Not only will such a comprehensive listing of the algal flora of the state be useful for other than New Jersey phycologists but it will also be especially helpful to workers here interested in both local environmental modifications occurring over the last century and in new records for the state. It is hoped that these papers will stimulate universal interest in phycology and will add to the body of knowledge of the distribution, taxonomy and classification of algae.

The algal habitats of the state of New Jersey are numerous and diverse. New Jersey contains coastal plain, piedmont and highland provinces. There are numerous lakes, ponds, small streams, large rivers, fresh- and salt-water marshes, estuaries, bays and an extensive shoreline. The Hudson and Delaware Rivers form major segments of the east and west boundaries, respectively, of the state. Due to its latitude, the range of many northern species terminates in New Jersey and, conversely, many southern species commence their ranges here.

In the following checklists of the algae, the genera are arranged alphabetically. Collecting locations are listed chronologically within each species. If no citation is given, the species was noted by the author.

DIVISION CHRYSOPHYTAYELLOW-GREEN ALGAE

Classes Xanthophyceae, Chrysophyceae and Prymnesiophyceae

Arachnochloris brevispinosa Pascher

rare in Oradell Reservoir, Aug (Foote, 1981)

Apedinella radians (Lohmann) Campbell

northern shore (Olsen & Cohn, 1979)

Botrydium granulatum L.

moist earth in Bergen Co. (Britton, 1889)

Calycomonas gracilis Lohmann

Barnegat Bay (Mountford, 1969, 1971); northern shore

(Olsen & Cohn, 1979)

Calycomonas ovalis Wulff

northern shore (Olsen & Cohn, 1979)

Chroomonas baltica (Buttner) Carter

northern shore (Olsen & Cohn, 1979)

Chroomonas caroliniana Campbell

northern shore (Olsen & Cohn, 1979)

Chroomonas dispersa Butcher

northern shore (Olsen & Cohn, 1979)

Chroomonas marina (Buttner) Butcher

northern shore (Olsen & Cohn, 1979)

Chroomonas salina (Wislouch) Butcher

northern shore (Olsen & Cohn, 1979)

Chroomonas vectensis Carter

northern shore (Olsen & Cohn, 1979)

Chrysochromulina kappa Parke & Mantan

northern shore (Olsen & Cohn, 1979)

Chrysochromulina minor Parke & Mantan

northern shore (Olsen & Cohn, 1979)

Chrysopyxis bipes Stein

epiphytic in Pine Barrens bogs (Moul & Buell, 1979)

Cryptomonas acuta Butcher

northern shore (Olsen & Cohn, 1979)

Cryptomonas erosa Ehr.

northern shore (Olsen & Cohn, 1979); Hackensack River

Cryptomonas irregularis Butcher

northern shore (Olsen & Cohn, 1979)

Cryptomonas maculata Butcher

northern shore (Olsen & Cohn, 1979)

Cryptomonas ovata Ehr.

Delaware-Raritan Canal, June-Mar (Renlund, 1953);

northern shore (Olsen & Cohn, 1979); Hackensack River

Cryptomonas pseudobaltica Butcher

northern shore (Olsen & Cohn, 1979)

- Cryptomonas testacea Campbell
northern shore (Olsen & Cohn, 1979)
- Cyclonexis annularis Stokes
squeezeings of Sphagnum moss in Helmetta pond (Moul & Buell, 1979)
- Derepyxis amphora Stokes
Helmetta pond (Moul & Buell, 1979)
- Dinobryon sertularia Ehr.
Delaware-Raritan Canal, June-Apr (Renlund, 1953);
bogs, cedar swamps, ponds and streams in the Pine Barrens (Moul & Buell, 1979)
- Dinobryon stipitatum Stein
Delaware-Raritan Canal, June (Renlund, 1953);
pond at Helmetta (Moul & Buell, 1979)
- Distephanus speculum (Ehr.) Haeckel
Barnegat Bay (Mountford, 1971); Little Egg Harbor,
Barnegat Bay and Tuckerton Bay (Sugihara et al., 1979); northern shore (Olsen & Cohn, 1979)
- Ebria tripartita (Schumann) Lemm.
Barnegat Bay (Mountford, 1971); northern shore (Olsen & Cohn, 1979)
- Gloeochloris smithiana Pascher
rare in Oradell Reservoir, Apr (Foote, 1981)
- Hemiselmis rotunda Butcher
northern shore (Olsen & Cohn, 1979)
- Hemiselmis virescens Droop
northern shore (Olsen & Cohn, 1979)
- Hillea marina Butcher
northern shore (Olsen & Cohn, 1979)
- Hymenomonas carterae (Braarud & Fagerland) Braarud
northern shore (Olsen & Cohn, 1979)
- Lagynion scherffelii Pasch.
epiphytic in Pine Barrens ponds (Moul & Buell, 1979)
- Lagynion triangulare (Stokes) Pasch.
epiphytic in streams in central New Jersey (Moul & Buell, 1979)
- Mallomonas acaroides Perty
Hackensack River
- Ochromonas mutabilis Klebs
occasional in plankton of Oradell Reservoir, Apr (Foote, 1981)
- Olisthodiscus luteus Carter
northern shore (Olsen & Cohn, 1979)
- Ophiocytium capitatum Wolle
frequent in stagnant ponds (Britton, 1889);
Delaware-Raritan Canal, Apr-June (Renlund, 1953); ponds in Pine Barrens (Moul & Buell, 1979)
- Ophiocytium cochleare A. Br.
frequent in stagnant ponds (Britton, 1889)
- Ophiocytium parvulum (Perty) A. Br.
bogs and ponds in Pine Barrens (Moul & Buell, 1979);
Hackensack River

- Pavlova gyrans Butcher
northern shore (Olsen & Cohn, 1979)
- Pavlova lutheri (Droop) Green
northern shore (Olsen & Cohn, 1979)
- Pavlova salina (Carter) Green
northern shore (Olsen & Cohn, 1979)
- Pyrmnesium parvum Carter
northern shore (Olsen & Cohn, 1979)
- Rhodomonas amphioxeia Conrad
northern shore (Olsen & Cohn, 1979)
- Rhodomonas minuta Skuja
northern shore (Olsen & Cohn, 1979)
- Synura uvella Ehr.
Delaware-Raritan Canal, July-Apr (Renlund, 1953);
bogs, ponds, cedar swamps and streams in Pine
Barrens (Moul & Buell, 1979); occasional in plankton
of Oradell Reservoir, Sept-Nov (Foote, 1981); Hackensack
River
- Tribonema bombycinum (Ag.) Derb. & Sol.
common and widely distributed in stagnant and
flowing waters, spring and fall: Undercliff (Apr),
Englewood (May), Closter (Oct) (Hazen, 1902)
- Tribonema bombycinum forma tenue Hazen
Closter (Oct) and Hudson Heights (Hazen, 1902)
- Tribonema minus Wolle
Undercliff in May and Dec (Hazen, 1902)
- Tribonema utriculosum Kutz.
slow or rapid streams and frequently found in
outlets of swamps in Hudson Heights and Grantswood (Hazen,
1902)
- Uroglena volvox Ehr.
Bass Lake (Moul & Buell, 1979)
- Uroglenopsis americana (Calkins) Lemm.
Delaware-Raritan Canal, June-Dec (Renlund, 1953);
occasional in plankton Oradell Reservoir, Apr (Foote,
1981)
- Vaucheria dillwynii Ag.
freshwater and banks of ponds and rivers
(Britton, 1889); state (Collins, 1928)
- Vaucheria geminata (Vauch.) D.C.
ponds and pools (Britton, 1889); common in quiet or
slowly running water (Collins, 1928)
- Vaucheria geninata var. racemosa (Vauch.) Walz.
state (Collins, 1902)
- Vaucheria litorea (Hoffm.) Bang.
Atlantic City, marine on gravel (Britton, 1889); mud
and gravel at low water mark (Collins, 1928)
- Vaucheria sessilis (Vauch.) D.C.
frequent on moist earth (Britton, 1889); common in
brooks and ditches (Collins, 1928)
- Vaucheria terrestris Lyngb.
on shaded, moist ground (Britton, 1889)

Vaucheria thuretti Woronin

state (Wolle, 1887); Atlantic City (Morse, 1888); on soil submerged by tides and muddy ditches by shore (Collins, 1928)

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