

Lia  
1863

## Descriptions of twenty-four New Species of UNIONIDÆ of the United States.

BY ISAAC LEA.

*UNIO RALEIGHENSIS*.—Testâ lœvi, inflatâ, valdè inæquilaterali, posticè ob-  
tusè biangulatâ, anticè rotundatâ; valvulis subcrassis, anticè crassioribus; natib-  
us subprominentibus; epidermide luteo-viridi et obsoletè radiatâ; dentibus  
cardinalibus parviusculis, in utroque valvulo duplicibus; lateralibus longis,  
lamellatis subcurvisque; margaritâ argenteâ et  
fuscus, Asia Minor. C. M. Wheatley.

*Unio* lœvi, quadratâ, inflatâ, valdè inæquilaterali; val-  
crassioribus; natibus prominulis, ad apices cre-  
epidermide rufo-fuscâ, obsoletè radiatâ; dentibus  
compressis, acuminatis, crenulatis, in utroque val-  
longis, lamellatis subrectisque; margaritâ vel albida  
et iridescente.

*Hab.*—Neuse River, six miles east of Raleigh, N. Carolina, E. Emmons,  
M. D.

*Unio CHARLOTTENSIS*.—Testâ lœvi, ellipticâ, subcompressâ, inæquilaterali, ad  
latere parum planulatâ; valvulis subtenouis, anticè crassioribus; natibus vix  
prominentibus; epidermide tenebroso-fuscâ, eradiatâ; dentibus cardinalibus  
parvissimis, compressis, valdè obliquis; lateralibus parviusculis, lamellatis et  
acuminatis; margaritâ albida et iridescente.

*Hab.*—Near Charlotte, Mecklenberg County, N. Carolina, E. Emmons, M. D.

*Unio MECKLENBERGENSIS*.—Testâ lœvi, ellipticâ, subcompressâ, inæquilaterali,  
ad latere parum planulatâ, posticè biangulatâ, anticè rotundatâ; valvulis crassis,  
anticè crassioribus; natibus prominulis; epidermide tenebroso-fuscâ, obsoletè ra-  
diatâ; dentibus cardinalibus subgrandibus, striatis crenulatisque; lateralibus  
longis, lamellatis corrugatisque; margaritâ albida vel purpurea et valdè iri-  
descente.

*Hab.*—Near Charlotte, Mecklenberg County, N. Carolina, E. Emmons, M. D.

*Unio GASTONENSIS*.—Testâ lœvi, subellipticâ, valdè inæquilaterali, ad latere  
planulatâ, posticè vix biangulatâ, anticè rotundâ; valvulis crassiusculis, an-  
ticè crassioribus; natibus prominulis; epidermide tenebroso-fuscâ, eradiatâ;  
dentibus cardinalibus parviusculis, in valvo sinistro tripartitus; lateralibus  
longis, lamellatis subcurvisque; margaritâ purpurecente et iridescente.

*Hab.*—Mine Creek, Gaston County, N. Carolina, C. M. Wheatley.

*Unio WELDONENSIS*.—Testâ lœvi, ellipticâ, subinflatâ, sublepticulari, posticè  
subbiangulatâ, anticè rotundâ; valvulis subcrassis, anticè parum crassioribus;  
natibus subprominentibus; epidermide tenebroso-fuscâ vel virido-fuscâ, radi-  
atâ; dentibus cardinalibus parviusculis, crenulatis, in utroque valvulo duplici-  
bus; lateralibus, prælongis, lamellatis subcurvisque; margaritâ albida vel pur-  
purea et iridescente.

*Hab.*—Roanoke River, at Weldon, N. Carolina, E. Emmons, M. D.

*Unio ABEBRANS*.—Testâ lœvi, oblongâ, subinflatâ, valdè inæquilaterali, ad  
latere planulatâ, posticè obtusè biangulatâ, anticè rotundatâ; valvulis crassi-  
usculis, anticè crassioribus; natibus subprominentibus; epidermide luteo-  
fuscâ, valdè radiatâ; dentibus cardinalibus parvis, in utroque valvulo duplici-  
bus; lateralibus longis, lamellatis subrectisque; margaritâ cæruleo-albâ vel purpu-  
reâ et iridescente.

*Hab.*—Neuse River, six miles east of Raleigh, N. Carolina, E. Emmons,  
M. D.

*Unio CHATHAMENSIS*.—Testâ lœvi, lato-ellipticâ, subcompressâ, valdè inæqui-  
laterali, posticè obtusè biangulatâ, anticè rotundatâ; valvulis subteauibus, an-  
ticè parum crassioribus; natibus prominulis; epidermide tenebroso-fuscâ vel  
tenebrosâ, viridi, radiatâ; dentibus cardinalibus parvis, crenulatis, in utroque  
valvulo duplicibus; lateralibus longis, lamellatis subrectisque; margaritâ albâ  
vel purpurea et valdè iridescente.

*Hab.*—Rocky River, Chatham County, N. Carolina, E. Emmons, M. D.; and  
James River, near Richmond, Major Le Conte.

*Unio MEDIOCRISS*.—Testâ lœvi, lato-ellipticâ, subinflatâ, valdè inæquilaterali;

1863.]

[July,



otundatā; valvulis subtenuibus, anticē parum  
is; epidermide luteo-fuscā, valdē radiatā; denti-  
tis, crenelatis; lateralibus longis, lamellatis  
vel purpureā et valdē iridescente.

N. Carolina, E. Emmons, M. D.

subinflatā, valdē inaequilaterali, posticē subtri-  
angularis, suberassis, anticē parum crassioribus;  
rmide furvā, squallidā, imbricatā, eradiata;  
striatis, in utroque valvulo duplicibus; late-  
ratisque; margaritā cæruleo-albā vel purpu-  
reā; Roanoke, near Weldon; and Deep River,

lævi, oblongā, subinflatā, ferè alatā, valdē in-  
flata, anticē rotundatā; valvulis subtenuibus;  
epidermide tenebroso-fuscā, eradiata vel obsoletē  
fusca; lateralibus longis, lamellatis sub-  
bā vel purpureā vel salmoniā et valdē iride-  
scens.

swick County, North Carolina, E. Emmons.

evi, oblongā, subinflatā, ad latere planulatā,  
et truncatā; valvulis crassiusculis;  
undulatis; epidermide tenebroso-fuscā;  
ibus cardinalibus parviusculis, tuberculatis,  
lateralibus longis, lamellatis subrectisque;  
salmoniā et valdē iridescente.

h Carolina, Dr. Barratt. Neuse River, Ra-  
lina, C. M. Wheatley.

pticā, inflatā, valdē inaequilaterali, posticē  
valvulis subtenuibus; natibus prominulis; epi-  
dote, radiatā, ad latere micante; dentibus car-  
nenulatis, in utroque valvulo duplicibus; lat-  
curvisque; margaritā cæruleo-albā et valdē  
wick County, North Carolina, E. Emmons.

lē transversā, compressā, ad latere planulatā,  
cuminatā, anticē oblique rotundatā; valvulis  
terminibus; epidermide tenebroso-fuscā,  
crassissimis, acuminatis, in utroque valvulo  
tenuibus rectisque; margaritā subsalmoniā

Jackson County, N. Carolina, E. Emmons, M. D.  
oblongā, inflatā, ad latere planulatā, valdē  
anticē rotundatā; valvulis suberassis, anticē  
ominentibus; epidermide fusco-nigricante;  
tuberculatis, striatis; lateralibus longis,  
albā, aliquantō purpureā et iridescente.

County, N. Carolina, C. M. Wheatley; and  
ons, M. D.

lē, oblongā, valdē inflatā, ad latere planu-  
biangulatā, anticē rotundatā; valvulis cras-  
sifermide fusco-nigricante, eradiata; denti-

[July,

bus cardinalibus parvī, tuberculatis, in utroque valvulo duplicibus; lateralib-  
us sublongis, lamellatis subrectisque; margaritā albā et iridescente.

Hab.—Neuse River, near Raleigh, N. Carolina, E. Emmons, M. D.

UNIO WACCAMAWENSIS.—Testā lævi, triangulare, inflatā, ad latere planulatā,  
valdē inaequilaterali, posticē subtriangularis, anticē rotundatā; valvulis tenuibus;  
natibus prominentibus; epidermide fusco-virente vel olivaceā, obsoletē radiatā;  
dentibus cardinalibus parvissimis, compressis, obliquis, in utroque valvulo du-  
plicibus; lateralibus longis, lamellatis rectisque; margaritā cæruleo-albā et iride-  
scens.

Hab.—Waccamaw Lake, North Carolina, E. Emmons, M. D.

UNIO PERTENUIS.—Testā lævi, obovatā, inflatā, subleptoculari, inaequilaterali,  
posticē obtusè biangulare, anticē rotundatā; valvulis pertenuibus, anticē parum  
crassioribus; natibus subprominentibus, ad apices rugoso-undulatis; epider-  
mide virente et radiis indutis; dentibus cardinalibus parvissimis, compres-  
sis, obliquis; lateralibus acicularis rectisque; margaritā cæruleo-albā et iride-  
scens.

Hab.—Neuse River, near Raleigh N. Carolina, E. Emmons, M. D.

UNIO PERLESCENS.—Testā lævi, ellipticā, subinflatā, valdē inaequilaterali; val-  
vulis subtenuibus, anticē parum crassioribus; natibus prominentibus; epidermide  
luteo-virente, perlucens et radiis indutis; dentibus cardinalibus parvī,  
compressis, crenulatis, in utroque valvulo duplicibus; lateralibus longis, lamel-  
latis subrectisque; margaritā cæruleo-albā et valdē iridescente.

Hab.—Six Rans, Sampson County, N. Carolina, E. Emmons, M. D.

UNIO PERLATUS.—Testā lævi, perlatā, valdē compressā, ad latere planulatā,  
valdē inaequilaterali; valvulis tenuibus, anticē parum crassioribus; natibus  
prominentibus, ad apices undulatis; epidermide fusco-virente, obsoletē radiatā;  
dentibus cardinalibus parvissimis, tuberculatis, in utroque valvulo duplicibus;  
lateralibus prælongis, acicularis rectisque; margaritā cæruleo-albā et valdē iri-  
descente.

Hab.—Black Rock Landing, Cape Fear River, N. Carolina, E. Emmons,  
M. D.

UNIO VIRIDULUS.—Testā lævi, transversā, subcompressā, ad latere planulatā,  
valdē inaequilaterali; valvulis tenuibus, anticē ad marginem parum crassioribus;  
natibus prominentibus, ad apices undulatis; epidermide virente, obsoletē radiatā,  
valdē politā; dentibus cardinalibus parvissimis, tuberculatis; lateralibus longis,  
acicularis subrectisque; margaritā cæruleo-albā et iridescente.

Hab.—Neuse River, near Raleigh, N. Carolina, E. Emmons, M. D.

UNIO ABLATUS.—Testā lævi, oblongā, subinflatā, ad latere parum planulatā,  
iaequequilaterali, posticē biangulatā; valvulis crassiusculis, anticē crassioribus;  
natibus prominentibus; epidermide tenebroso-castaneā, eradiata, politā; dentibus  
cardinalibus parviusculis, tuberculatis, in utroque valvulo duplicibus; lateralib-  
us longis, lamellatis rectisque; margaritā salmoniā, aliquantō albida et  
valdē iridescente.

Hab.—Long Creek, Gaston County, N. Carolina, C. M. Wheatley; N. Caro-  
lina, J. G. Anthony.

UNIO CURATUS.—Testā lævi, ellipticā, subinflatā, ad latere parum planulatā,  
iaequequilaterali, posticē biangulatā; valvulis suberassis, anticē crassioribus; natibus  
prominentibus; epidermide croceā, eradiata, miscante; dentibus cardinalibus  
parviusculis, striatis, acuminatis, in utroque valvulo duplicibus; lateralibus lon-  
gis, lamellatis subrectisque; margaritā salmoniā et valdē iridescente.

Hab.—Sugar Creek, N. Carolina, C. M. Wheatley.

ANODONTA DOLEARIS.—Testā lævi, oblongā, valdē inflatā, subaequilaterali,  
posticē obtusè biangulatā, anticē oblique rotundatā; valvulis crassis; natibus

1863.]

próminentibus et valde inflatis; epidermide luteo-virente, valde radiata et mante; margarita dilute carnea et valde iridescente.

*Hab.*—Stewart's Milldam, Union County, N. Carolina, C. M. Wheatley.

**ANODONTA BEALEI.**—Testa lœvi, ovato-oblonga, subinflata, inæquilaterali, positiæ subtriangulariæ, anticè rotundata; valvulis tenuibus; natibus subprominentibus, ad apices undulatis; epidermide olivacea, polita, obsoletè radiata; margarita cæruleo-alba et iridescente.

*Hab.*—Leon County, Texas, Lieut. Beale.

Notes on the PICIDÆ, with descriptions of new and little known species.

BY JOHN CASSIN.

1. PICIDÆ.

Since the completion of M. Malherbe's great work on the Woodpeckers, "Monographie des Picidées," the study of the birds of this family, so far as relates to a very large majority of the species, is a matter of the utmost facility. In the course of an examination of the species of this group in the Academy Museum, I have been constantly impressed with the extraordinary research exhibited by M. Malherbe in this elaborate and complete Monograph. It must be regarded as one of the most important and valuable contributions ever made to Ornithological science, and is, assuredly, in comprehensive information and accuracy of detail, rarely to be equalled in the present age or any other. It is a model and paragon of Monographs, and a monument of patient research, accurate knowledge and sound judgment.

The collection of Woodpeckers, in the Academy Museum, at present embraces about three-fourths of the species given by M. Malherbe, and I have identified all the specimens of every species in the collection except those described as new in this paper. The careful and usually very accurate figures of females and young birds given by him, have been of great service, and I have never before, in the investigation of any group, been able to thoroughly work up all specimens in however obscure or incomplete plumage. The following statement shows the number of species in M. Malherbe's Monograph and the number in the Academy Museum, under his generic designations:

	Malh.	Acad.	
Genera.	Mon.	Mus.	
Megapicus, <i>Malh.</i>	14	13	(Wanting <i>M. sclateri</i> , <i>Malh.</i> )
Dryopicus, <i>Malh.</i>	11	11	
Picus, <i>Linn.</i>	63	46	(Wanting <i>P. mandarinus</i> , <i>Luciani</i> , <i>assimilis</i> , <i>atratus</i> , <i>undosus</i> , <i>uralensis</i> , <i>syriacus</i> , <i>Wagleri</i> , <i>kamtschaticus</i> , <i>leucurus</i> , <i>Feliciae</i> , <i>auritus</i> , <i>canicapillus</i> , <i>meniscus</i> , <i>gymnophthalmus</i> , <i>kisuki</i> , <i>pygmaeus</i> .)
Sphyrapicus, <i>Baird</i>	3	3	
Picoides, <i>Lacépède</i>	9	6	(Wanting <i>P. cayennensis</i> , <i>undulatus</i> , <i>undosus</i> .)
Micropicus, <i>Malh.</i>	3	3	
Dendropicus, <i>Malh.</i>	10	8	(Wanting <i>D. schoensis</i> , <i>Hemprichii</i> .)
Phaiopicus, <i>Malh.</i>	9	7	(Wanting <i>P. sordidus</i> , <i>jugularis</i> .)
Celeopicus, <i>Malh.</i>	20	13	(Wanting <i>C. Fraseri</i> , <i>multifasciatus</i> , <i>ochraceus</i> , <i>flavicollis</i> , <i>semicinnamomeus</i> , <i>smaragdinicollis</i> , <i>pyrrhotis</i> .)
Mesopicus, <i>Malh.</i>	25	20	(Wanting <i>M. tanionotus</i> , <i>murinus</i> , <i>nigriceps</i> , <i>Kirkii</i> , <i>sanguinolentus</i> .)

[July,

NATURAL SCIENCES OF PHILADELPHIA

Indopicus, <i>Malh.</i>	7	4	{ ( <i>Wanting I. De Less</i> <i>Carlotta</i> .)
Brahmapiens, <i>Malh.</i>	3	3	
Chloropicoides, <i>Malh.</i>	6	5	(Wanting <i>C. Grant</i> )
Chloropicus, <i>Malh.</i>	24	22	(Wanting <i>C. kareli</i> )
Chrysopicus, <i>Malh.</i>	25	21	{ ( <i>Wanting C. macula</i> <i>corni</i> , <i>Brueci</i> .)
Melampicus, <i>Malh.</i>	13	10	{ ( <i>Wanting M. mel</i> <i>nieri</i> , <i>xantholarynx</i> )
Xenopicus, <i>Baird</i>	1	1	
Zebraicus, <i>Malh.</i>	15	12	{ ( <i>Wanting Z. hypoleucus</i> )
Geopus, <i>Malh.</i>	12	12	
Picumnus, <i>Temm.</i>	14	7	{ ( <i>Wanting P. ocellatus</i> <i>midatus</i> , <i>Lafresnei</i> , <i>fonii</i> , <i>Verreauxii</i> )
Picumnoides, <i>Malh.</i>	3	2	( <i>P. lacrymosus</i> , <i>M</i> )
Yunx, <i>Linn.</i>	5	4	( <i>Y. aquatorialis</i> , <i>I</i> )

295 233

This statement is, however, to be regarded as founded of M. Malherbe, in a few particulars of which I have them from him. Making deductions for species given by him very probably identical with others, (such as *Picus Martii* Aud. and some others) and additions for species recent included by M. Malherbe, and also a few species given but which appear to me to be properly regarded as determined 236 species of Woodpeckers in the Academy Museum.

2. PICUS SCALARIS, Wagler.

Of the birds regarded as this species or varieties of it seem to me to be several species, quite distinct from each inhabiting separate regions of North America.

1. PICUS NUTTALLII, Gambel.

Malh. Mon. pl. xxiv. figs. 5, 6, 7. Baird, R. of N.  
*Hab.*—California. Spec. in Mus. Acad. Philada.

In this species there is in the adult male a wide front which is frequently clear black, but generally with the narrow spots of white at their tips. Immediately suc the occiput is a narrow band of white and then a wide back is very distinctly banded with black and white—the wider. The two black stripes from the base of the lobe behind the eye unite and form a large black space on the head.

This is a readily defined and easily recognized species group. It appears to be restricted to California.

2. PICUS SCALARIS, Wagler.

Malh. Mon. pl. xxvii. figs. 1, 2, 3, 4, 5.

*Hab.*—Southern Mexico? Spec. in Mus. Acad. Pl.

Plumage of the head above tipped with scarlet and subterminal spots of white. Back with the transverse white clearly defined but narrower and more numerous but with the black bands the wider. Smaller than the species from that.

3. PICUS LUCASANUS, Xantus.

*Picus lucasanus*, Xantus, Proc. Acad. Philada., figured).

1863.]