

1811 No1 Ed1 v4.docx

## Templeton Journal 1811 Fiche No 1

1 January to 26 June

117 pages, 11000 words.

PDF	DAY	MONTH/YEAR	JOURNAL PAGE
-----	-----	------------	--------------

1		1811	
---	--	------	--

2		January 1811.	
---	--	---------------	--

	1	Ther at 9AM. 33	
--	---	-----------------	--

[Following section checked against

*The Philosophical Magazine XXI*]

Botany, like all the other physical sciences, may be considered under

two points of view. In the first,

we examine in plants those things

which are perceptibly to the sen-

-ses; and, by comparing the dif-

-ferences observed, deduce the

means of distinguishing them

with certainty from each other.

In the second, we endeavour to

discover the qualities by which

they may be useful to man:-

the one is pure botany, the

other

3			
---	--	--	--

other is the application of botany.

Most people who have devoted themselves exclusively to one branch of knowledge, or who have not had an opportunity of acquiring any, being accustomed to judge superficially, value only the second, and consider the first as almost entirely useless.

It ought, however, to be considered as the foundation of the second; for as it alone establishes, as we may say, the state of a vegetable, it is by it that we can be assured what plants are capable of giving us that assistance for which we may have occasion.

The moment, therefore, that the theoretic botanist seems to at

-tend

4

tend least to the wants of Society, is very often that when he is about to announce an important discovery. Being enabled by an exact synonymy to consult all

the books which have been  
written on the subject  
he examines, he takes advan-  
-tage of the knowlege of all nations and all  
periods. In the second place,  
if the vegetable he  
examines have escaped the re-  
-searches of his predecessors, ob-  
-servation enables him to find  
out the purpose for which it  
may be employed. The Science  
which he cultivates affords him  
still another mean of interroga-  
-ting nature; it is the examina-  
-tion

5

-tion of affinities, or the study of  
natural families; for observa-  
-tion has taught, that, in ge-  
-neral, plants which have an  
external resemblance in their  
organization, retain it in the  
immediate principles of which  
they are composed. The natural  
classification, therefore, may give

reason for conjecturing the virtues  
of a new plant, but, unfortunate  
-ly, the labour which could give  
us any certainty in this respect  
has not been carried to a suf-  
-ficient length:- to bring it to  
perfection would require the  
complete union of a thorough  
knowledge of botany and chemis-  
-try

Hitherto,

6

Hitherto, therefore, the senses of  
taste and smell have been almost  
the only guides for discovering in  
several families, exceedingly na-  
-tural, one common principle.  
In the umbelliferous plants, for  
example, it is traced from plants  
the most wholesome and most  
commonly used for food, such as  
the carrot, to those which are  
aromatic, as fennel, and even  
to poisonous plants, such as  
hemlock; one observes in all

these plants a particular taste,  
more or less striking, and which  
is found in its highest degree  
in those species accounted poi-  
-sonous. It even appears that  
the observation of it is sometimes

more

7

more certain than the common  
classifications. It is thus that  
the *Lagacia* could not by these  
means be separated from the  
umbelliferous plants, when by  
its fruit it was referred to them  
only with doubtfulness: we  
must therefore hope that botanists  
will be able to discover a substance com-  
-mon to all these plants, an um-  
-belliferous principle. In a word,  
there exists one equally striking in  
the leguminous plants, from which  
it passes also, but more rarely,  
from those that are fit to be  
eaten to those which are poison-  
-ous, when it exists in its state

of greatest concentration.

But there are several other fami

-lies

8

-lies which seem to be equally na-

-tural, and in which it is dif

-ficult to discover a common prin

-ciple: of this kind are the rubi-

-aceous plants of Jussieu. The

signal services derived from a

small number of the plants

which they comprehend are of

a nature so different that it

is difficult to deduce a general

induction for the rest. Of this

kind is madder, the root of which

possesses a dyeing quality in so

eminent a degree; coffee the ber-

-ries of which are so useful; and

in the last place cinchona,

rendered so valuable by the febrifuge

qualities of its bark. Though

all the plants comprehended in

this

9

this family have a greater affinity to each other than they have to any other of the vegetable kingdom, it appears itself to be composed of particular groups or species of sub-families, and each of the plants I have mentioned may be considered as the type of one of them. It may be readily seen that the other plants which accompany each of them, either as belonging to the same genus or as its neighbour, participate more or less in the quality on account of which it is employed. Thus it has been found that almost all the stettatae of Ray are tinctorial; almost all the seeds of the neighbouring genera  
of

10

of the Coffee shrub, sufficiently large to be torrifed with advantage, appear to be of the same nature. The case is the same

with cinchona. I have seen  
the bark of a beautiful species  
of *mussenda* of the Isle of France  
employed as a febrifuge, by a phy-  
-sician, one of my friends.

These qualities also are seen to  
pass from one groupe to another.

It is thus that the Indians ex-  
-tract the beautiful red colour  
of the *chailliver*, which accord-  
-ing to Adamson was a *hedyotis*,  
and which Roxburgh has des-  
-cribed as an *oldenlandia*.

They extract also a red colour  
from the *royoc* or *morinda*.

The

11

The cinchonas themselves  
have given colours.

Some of their particular pro-  
-perties have been found also  
in shrubs which had a very  
distant relation to them.

The *phychotria emetica* ap



-proaches near to some of those which have been found to be emetic. The *antirhea* of Commersen or wood of the *losteau*, participates in the anti-dysenteric quality of the last mentioned plant. In a word, according to Gaertnir and several others, a kind of coffee has been extracted from the seeds of *aparine*.

#### Other

12

Other properties less extensive in one groupe have others analogous to them in another. Thus the pretty species of mussenda, which Commerson named, after his countryman. *Lalandia stelliflora*, has a relation to the *asperula odorata*. Its dried leaves, like those of that plant, acquire an agreeable odour, on which account they are put among

linen: on the other hand, the fetid and cadaverous odour of the *poederia* is found in the *seris*-*sa* of Jussieu, or the *dysoda* of Loureiro, and in the fruit of some kinds of *Pyrostria*.

However vague these indications may be, they may serve as

13

as guides in experiments; and though one cannot previously assert that a rubiaceous plant possesses any of its properties, one will be surprised to find them in it. When I was in Madagascar, in 1795, I saw without astonishment the natives of the country extract, from the root of a rubiaceous plant, the red dye they employed for the cloth which they wore of thread, made from the tafia palm. I readily knew

it to be a creeping shrub, com-  
-mon in the elevated places  
of the Isle of France.

*Memoir on the Tinctorial*

*Properties of the Danais of*

*Commerson, a Shrub of the Family of the Rubiaciae.*

*Extracted from the Flora of Madagascar.*

*By Aubert du Petit Thouars. From the Journal*

*de Physique [Reproduced in]- Tilloch, A: Philosophical Magazine,*

1805, XXI, p35

14

2 Ther at 8½ AM. 34 Some snow

Showers

3 Ther at 8½ AM. 35. Dark dry

day

4 Ther at 9 AM 34 Dark cold day

with some snow. Heavy and

deep Snow in land about Lurgan

and Dromore.

As it often happens that while

Snow falls and lies inland the

valley of Belfast is entirely

free from it, although

accounts say the Scotch hills

are covered, can the wind blow

-ing across the narrow sea between Scotland and Ireland be

so much warmed by the pas-

-sage as not to gene

-rate

**15**

rate snow until until it has  
passed 15 or 20 Miles inland  
and can the Belfast Lough  
assist in carrying the Mari  
time warmth further inland  
for it may be observed that  
the grounds on each side of  
this valley where the North East  
traverses over more land have  
their due covering of Snow  
and that the Belfast Valley  
is not covered until long after  
-wards (with Snow brought from  
the North East) or when a  
greater cold comes to prevail.

**16**

5 Ther at 9 AM. 31. Some snow and  
hail falling

6 Ther at 9 AM. 35. dark dry day

7 Ther at 9 AM. 35½ dark dry day

- 8 Ther at 8 AM. 33 Dark dry day
- 9 Ther at 9 AM. 33. Dark day dry  
Snowdrops emerging
- 10 Ther at 8 AM. 41. Very Wet day
- 11 Ther at 8 AM. 34. A fine day  
after the rain of yesterday  
Woodlark Singing
- 12 Ther at 9 AM. 40 Pleasant  
dry day Lightning at night and  
very Stormy

13

17

January 1811

- 13 Ther at 10 AM. 37. Fine dry day
- 14 Ther at 9 AM. 34 Rain at Even
- 15 Ther at 8 AM. 35 Snow Falling  
through the day  
Accounts from England say the  
Thames is frozen across, and the  
Roads blocked up in many pla  
-ces with snow.
- 16 Ther at 9 AM. 32. dry day Rain  
at Night  
Very stormy night
- 17 Ther at 8 AM. 50 Heavy Rain

Afternoon

18 Ther at 9 AM. 33 Heavy Snow

Showers

Finished my drawing of *Fucus Brownii*

18

19 Ther at 9 AM. 35

Shower during the day

Finished a Drawing of *Funicula*

*-sia lycopodioides*

20 Ther at 9 AM. 45

Stormy Wet night Fine day

21 Ther at 9 AM. 36

Wet stormy Night Fine dry day

21 Ther at 8 AM. 42. Fine dry day

22 Ther at 9 AM. 34 Brilliant day

Primrose/ *Primula Vulgaris*

Sulphur Coloured and Crimson in

the Garden Flowering

Robin Woodlark and Wren singing

19

[Insert]

A Swallow of the Common Species (*Hirundo rustica* undoubtedly

lately come from Europe followed us for some time without light

ing upon the Vessel; but soon directed itself towards the Apian

Coast where it now sure of finding the insects on which it feeds.

We were now about 28°N Lat- 22- 30 E. Longitude

Labillardieres Noy 1-73

20

23 Ther at 8 AM. 28 Very fine  
day

25 Ther at 8 AM. 35½ Pleasant  
dark day with some small drops  
of Rain

Thrush Wren Woodlark & Robin Sing

26 Ther at 9 AM. 44. Fine day  
Some Misty rain

27 Ther at 9 AM. 32  
Snow falling in the Afternoon  
to about 2 inches

Received from Mr Wm. Hague  
a Bittern got in the Bog  
Meadows

28 Ther at 8 AM. 18. Frosty  
Fine bright day

Ther at 10 PM 17  
Received from Mr P. Dinnen  
a Specimen of the *Alea Pica*  
or Black billed Awk

21

29 Ther at 8 AM. 19. at 9-19  
Middle of the 24 at 9 PM 19  
no Snow falling through the day  
Made a drawing of the Bittern

30 Ther at 8 AM.15 at 9½ 22.  
at 11-33 at 10 P.M. 32.

31 Ther at 9 AM. 32 at 9 PM  
32  
Great deal of Snow falling and  
high wind driving it into  
wreaths as high Ned Laverys  
ditch.

February

1 Ther at 9 AM. 33½ Very  
Stormy night Snowing during  
the day. Freezing at Night

**22**

February 1811

2 Ther at 9 AM. 23. Snowing  
during the day Rain at  
Night

3 Ther at 9 AM. 35 Thawing  
without Rain

4 Ther at 8 AM. 34. Slight ice  
Fine day



- 5 Ther at 10 AM. 42. Rain towards  
Night
- 6 Ther at 9 AM. 45 Some Rain  
Robin singing and Hedge Sparrow
- 7 Ther at 8 AM. 39. Stormy very  
wet night, Showers during the  
day.

23

February 1811

- 8 Ther at 9 AM. 46. Some Showers  
with fine Sunshine intervals  
Wood Lark singing
- 9 Ther at 8½ AM. 35. Fine  
bright dry day  
Made a Drawing of a Leech  
Found by Ellen adhering to Perch  
From Lough Neagh bought in  
Belfast Market Perhaps it  
is the *Hirudo Geometra*
- 10 Ther at 9 AM. 43. Wet Morn  
ing Fine day  
Thrush Chaffinch Hedge  
Sparrow  
Snowdrops Fl

24

[repeat of 22]

25

[repeat of 23 with inserted note:]

I had a Holly hock which from  
Double became a single Flow-  
-ering one on being transplanted  
from a rich to a poor soil

26

- 11 Ther at 8 AM. 45 Showers  
Common Lark Singing
- 12 Ther at 8 AM. 42 Heavy  
Showers Cold wind from the  
NW in the Evening
- 13 Ther at 9 AM. 31  
Frost with Snow in the  
Morning Rain during the  
day
- 14 Ther at 8½ AM. 37 Pleasant  
day with a Slight Frost
- 15 Ther at 8 AM. 35. Slight  
Rain
- 16 Ther at 9 AM. 35. Fine day
- 17 Ther at 9 AM. 32 Snow falling  
through the day

27

February 1811

18 Ther at 9 AM. 44 Slight Misty

Rain

19 Ther at 8 AM. 40. Heavy Rain

20 Ther at 8 AM. 35½ Rain

21 Ther at 8 AM. 39 Heavy Rain

Attended a Meeting of the Aca

-demic Institution, on the

Summons of the Visitors to deter

-mine on the appropriation of

a portion of the funds for the

literary establishment, after

much debate it was decided to

to appropriate one fourth of

the present funds in bank for

the use of the Scientific and Li

28

Literary department

D<sup>r</sup>. Drennan opened the Business

of the meeting by reading the propo

sal that a portion of the funds

should be set aside to accumulate

D<sup>r</sup>. Stephenson endeavoured to

shows the necessity of this he was

followed by M<sup>r</sup> Hannah Mr Groves  
and the Rev<sup>d</sup> M<sup>r</sup> Henry of Connor  
M<sup>r</sup>. May Sen. from the Chair said  
he was very sorry to see any differ  
-ence of opinion among the officers  
of the Institution he thought their  
fears were groundless that if even  
all the present Sum was expen  
ded

29

ded there was no reason to suppose  
any deficiency could be felt he  
had no doubt but all the sub  
scribed money would be paid  
and they might rest assured  
that when the Government were  
called upon to aid the Insti  
-tution they would liberally  
give support

The Managers Report was read  
they pleaded in excuse for not  
agreeing to a division of the pre  
-sent funds that according to the  
estimate of their Architect  
that part of M<sup>r</sup> Soanes

plan which a former meeting  
had ordered to be executed could  
not

30

not be completed should any di-  
-minution of the funds take  
place.

Dr. Stephenson argued that  
if economy was adopted  
and all useless ornament  
laid aside every accommodation  
which the Institution requi-  
-red might be had for a much  
less sum than what the ma-  
-agers demanded, he said that  
Mr Soane might be a very good  
Architect with unlimited funds  
to build a highly ornamental  
structure but that he knew no-  
-thing about the necessary ar-  
-range

31

arrangements of a College, that  
the Managers might know very  
well how to Calculate Interest

understand banking and other  
Commercial matters but that  
when they attempted to arrange  
the business of a College they plunged  
beyond their depth.

This last speech seemed to ir-  
-ritate the Managers and ar-  
ouse their personal feelings  
and some things slipped into the  
speeches of Mr R. Scimms Mr  
Getty, Mr M<sup>c</sup>Clery and the Rev<sup>d</sup>.

Edward May which produced  
a reciprocal irritation for I am  
sorry to say that the debates  
proceeded not as from Men

acting

32

acting for the public, but as  
from Men whose feelings were  
aroused to warmth not for the public  
interest, but to combat others with the  
blind zeal of {hardy spirit} This appears the bane  
The distressing lock on which  
Public business is forever lia-  
-ble to be Wrecked, whenever

personal feeling is allowed to rise beyond the barriers of Moderation the Public good is tossed out of the Scale, and selfishness holds the balance.

The Visitors had a Majority on the question for the appropriation of a Sum for the literary department, but where the debates commenced on what Sum the

33

the Managers seemed to acquire a preponderance, the Visitors wished for one third, the Managers wished to give the smallest sum which they thought would meet the approbation of the subscribers, proposed one fourth. the Rev<sup>d</sup> Mr May seemed so far to dislike that, any part of the funds should be taken from the building, that he declared that, he become a

silent spectator of the pro-  
-ceedings under the Idea  
of calling another General  
meeting, in order to rescind  
the

34

the Resolutions of the present  
one, he said that the present  
conductors appeared to have lost  
sight of the objects held forth  
to the Marquiss of Donegall  
to induce him to grant ground  
for the Institution and to him,  
to induce him to patronize the  
undertaking, that the great ob-  
-ject presented to his Lordship  
was that the town should be  
ornamented with a handsome  
building, and that if the sub-  
-scribers did not fulfil this  
engagement they had broken  
faith, both with the Marquiss  
and him. This assertion

appeared

35



appeared to be founded on an  
Idea then presenting itself to  
his mind, for on reading a copy  
of the letter presented to him  
no particular building was spe  
-cified, [The following note was inserted between the main text:]

Mr W<sup>m</sup> Tennent under the Idea of ending  
the dispute between parties proposed  
that one third of the present funds in Bank  
should be set apart for the literary and  
Scientific departments, this was set aside and One  
fourth was the Sum decided on.

The Public cannot be so well  
acquainted with those letters  
and their origin as their authors.

Mr James M<sup>c</sup>Clery on the 12<sup>th</sup>  
of May 1807 came out to my  
house in Malone, and requested  
me to Write copies of Letters  
to the Marquise of Donegall  
and Mr May in order to in

-duce

-duce the Marquiss to grant  
some ground for building a

Seminary in which not only the Sciences immediately connected with Commerce should be taught, but also those higher branches of knowledge, which would fit a young Man to enter the learned professions, I approved very much of the Scheme but I was very diffident of my abilities for composition of the sort required, and insisted that Mr M<sup>c</sup>Clery would himself express much better what he wanted than I could or that he could find some person who could, he said the business had been now delayed for a year in consequence of depending for assistance on  
others

37

others and that I must at any rate begin and he and M<sup>rs</sup>. Templeton would help we accordingly began and on the 14<sup>th</sup> we had finished two letters which pleased us tolerably well. on the 17th

in the Evening he came to tell  
me how well he had succeeded  
in getting signatures to the letters  
43 having signed them.

When subscriptions were begun to  
be collected the amount and the li  
berality of the Subscriptions far  
exceeded our most sanguine expec  
-tations and we now began to  
extend our views from a School  
to a College.

On the 1<sup>st</sup> of Aug<sup>t</sup> I went to town  
to attend the first Public Meeting  
of the friends of the Academical  
Institution

38

Institution it was attended by about  
40 people at this Meeting M<sup>r</sup> Rob<sup>t</sup>  
Getty in the Chair, 6 Trustees were  
appointed, and a Committee of 10  
for the purpose of Drawing up a  
plan for the Political Economy  
and System of Education to be  
adopted in the intended Semi-  
-nary to be laid before a General

Meeting when the Lease is per-  
-fected.

From this Statement it is impos-  
-sible to assert that faith has  
been broken with either the  
Marquiss or M<sup>r</sup> May for it  
was impossible at the time  
the letters were written to the  
Marquiss and Mr May to calcu-  
late on the raising of £6000  
can

**39**

can any one say in that  
case that the hopes of the friends  
to a fine building are not exceeded  
when much above that sum could  
be laid out without encroaching  
upon that sum which the Vi-  
-sitors demanded

**40**

[blank]

**41**

February 1811

22 Ther at 9 AM. 40 Heavy Rain  
during the day and Night Great  
floods

Snowdrops in full Flower

- 23 Ther at 8 AM. 39 Rain  
Received Several kinds of Grafts of  
Cherries from M<sup>r</sup> R Owens of Moira
- 24 Ther at 9 AM. 39 Fine dry  
day  
Went to Lambeg found again  
in the Field on the left  
side of the Road near Lambeg  
the supposed *Polytrichum*  
*rubellum* -
- 25 Ther at 7 AM. 32. A very  
Fine bright day  
Saw a Brambling (*Fringilla*  
*Montifringilla*) caught near  
Belfast during the Snow

26

42

February

- 26 Ther at 8 AM. 44 Showers  
very Stormy Night.
- 27 Ther at 8 AM. 40 Squally with  
showers Calm towards Evening  
Single Blue Hepatica (*Ane-*  
*-mone Hepatica*) and

Double Red Hepatica Flow

ering

Black Bird (*Merula*)

Yellow hammer (*Emberiza*

*-za Citrinella*) singing

28 Ther at 8 AM. 44 Rain

43

March 1811

1 Ther at 8 AM. 36 Showery and

Clear

Very Stormy Night

2 Ther at 9 AM. 50

*Crocus Moesiacus & biflorus* } almost,

and *Daphne Mezereon*, } Flowering

3 Ther at 8 AM. 42. Some Show

-ers

4 Ther at 8 AM. 50 Stormy night

Slight Shower

5 Ther at 8 AM. 45. Rainy day

Received from Mr Harvey

*Cupressus disticha*

Frogs Croaking

44

March 1811

6 Ther at 8 AM. 38. Wet night

dry day     *Erica herbacea* and

*Mezereon* Flowering

7     Ther at 8 AM. 38   Wet night

Snow on the Mountain tops

Fine day

8     Ther at 8 AM. 38   Fine day

*Scilla bifolia* Fl

9     Ther at 9 AM. 34. Dopping day

Mountains with White tops

10    Ther at 8 AM. 49. Dark Misty dry

day

11    Ther at 8 AM. 48. Dark Misty

Fine day.

12    Ther at 8 AM. 47   Fine day

*Erythronium*

*Viola odorata* alba

*Papilio Urtica* & Bees & Wasp

45

March 1811

Extracts from An Eulogium pronounced by Count Broissy d Anglas [1756-1826]

over the Tomb of his Colleague

M. de Sainte Croix. [13 March 1809]

The Institute of France, rendering

to M. de Sainte Croix the sad and

painful duty which we are now  
fulfilling towards him, "says he"  
does not merely acquit its own  
debt; it deplores a public loss;  
and the regrets I am charged to  
express, are not yours alone, but  
those of all men worthy of appre-  
-ciating great labours, or revering  
the noble virtues. It is not in  
this funeral mansion, where all  
the social distinctions for ever  
disappear, amidst the eternal  
night of the Tomb, where all the  
efforts on the part of vanity, to  
preserve some few traces on a mar-  
-ble

46

-ble equally perishable with it-  
-self, only serves to make the no-  
thingness of man still more con-  
-spicuous; ..... it is not, I say,  
in this asylum of Death, that  
I dare recal the birth of M. de  
Sainte Croix as one of the mo-  
-tives of your regret; ..... if I



remark that it was illustrious,  
it is but to praise him, for hav-  
-ing escaped, notwithstanding this,  
from all the seductions of rank,  
from all the lures of ambition,  
from all the  
caresses of fortune, merely to fol-  
-low the instinct of his Genius,  
and to prefer the real glory he  
aimed at, to all the lustre which  
was to be derived from his an-  
-cestors. Born in one of those  
portions of France, where the  
eye

47

eye is incessantly struck with  
the magnificent remains of  
Grandeur, which have survi  
ved twenty centuries, to in-  
-flame and elevate the Soul.  
M. de Sainte Croix was early  
fascinated with the imperious  
desire to explain the object  
which attracted his notice.  
He accordingly became an An-

-tiary on beholding the finest  
Monuments of Antiquity, and  
an historian as well as a  
learned Man, in the same  
manner that La Fontaine be-  
-came a poet, and Corregio a pain-  
-ter.....by one of those sudden  
inspirations, which informing  
man

48

man of his strength, and com-  
-municating the secret of his  
genius, points on the career to  
which nature had destined him.  
In a short time, the ancient  
idioms became equally fami-  
-liar with his native tongue; in  
a short time, his own researches  
enlightened by the flambeau of  
criticism, conducted him across  
the Ocean of time, and rendered  
him in some degree the con-  
-temporary of past ages; from  
that moment the most distant  
antiquity had no longer any

Mysteries for him, or the night  
of time any more shadows.  
The learned portion of Europe, justly  
prizing his penetration and acquire  
-ments

49

-ments, in him beheld one of those  
who could add to the mass of her  
discoveries. While still young,  
he was reckoned among the most  
distinguished of his countrymen,  
and the Academy of Belles Let-  
-tres, whose labours you have  
continued, while you have revi-  
-ved its glory, after several  
times bestowing crowns hastened  
to admit him as one of its mem-  
-bers. Seated along with the  
most able and enlightened per-  
-sons of his time, some of whom  
advanced before him to the  
tomb, while others for the  
advantage of letters still  
honour the third class of the In-  
stitute

-stitute, M de Sainte Croix acquired new information in for what he himself communicated; his emulation with his knowledge, and numerous productions soon sealed his renown.

But it sometimes happens that that great erudition may be wanting in point of utility, and thus appear to but little advantage; it is the same with learning as with riches, for it is less by its extent and its mass, then by its employment, that it merits our esteem. It is not sufficient to collect facts and dates, or to explain monuments; it is necessary that a philosophical spirit should connect the scattered rays of knowledge, guide them towards one common end, and thus give them an useful direction

direction. It was this that constitu

-ted the great merit of the colleague whose loss we now bewail. He was not alone admirable, on account of his profound penetration and his extensive knowledge; but also by the happy application of result of his labours, he knew how to aggrandise anything of which he treated, and to render every thing discovered by him useful.

Educated as it were in the bosom of Antiquity, M de S. Croix appears to have adopted its noble character; he might have been taken for a scholar of the portico, if he had not evinced so much indulgence, and for a disciple of Plato, had he possessed

52

-sessed less simplicity. He was austere in his manners, modest in his conduct, without any other ambition than that of

glory, without any other pas-  
-sion than that of virtue.

He did not possess an affection  
that was not pure, a sentiment  
that was not generous; his mind  
was noble and elevated, his  
heart beneficent and replete  
with sensibility.

But, alas! and it is cruel to  
repeat it, this excellent man,  
so worthy of esteem, veneration  
and attachment, was not uni-  
-formly happy: for glory is not  
happiness, and renown

is

53

is often nothing more than a  
Splendid bauble. These can  
-not cure the wounds of the  
mind, or replace the inestima-  
ble happiness of private life.

Without doubt he was a happy  
husband, and when his eyes  
were closed forever, his hand  
still squeezed the hand of a

beloved wife: but he was un-  
-fortunate as a father, for  
he beheld his children snatch  
-ed from him in the flower  
of their youth, and he exclaim  
-ed, "I have peopled only the  
tomb, but I consoled myself  
with thinking that I shall

soon

54

soon descend there myself!"  
He has descended surrounded by our  
regrets - accompanied with  
the sorrow of all, --- followed by  
the public esteem. He has  
descended with all the courage  
that Philosophy could inspire;  
with all the resignation that  
religion alone produces: he  
died at once like a sage  
and a Christian.  
May he in that Heaven in  
which he had such an en-  
-tire reliance  
rejoin the objects of his love,

and experience in that ter  
-ritory which has now commen  
-ced for him the reward of sixty  
years replete with Virtues

London Monthly Magazine

Vol.30. 698

55

- 13 Ther at 8 AM.44 Fine day  
Found on Carrickfergus Oysters  
*Aphrodita clava*  
*Patella maculata*
- 14 Ther at 8 AM. 40 Very fine  
day  
*Narcissus minor* } Flowering  
*Viola odorata.* }
- 15 Ther at 8 AM.40. Fine day  
Grafted Cherries and plums  
On the Row Lord Moiras No. 2  
On the three branched Black heart  
No. 3  
On the Stocks at the Larch Grove  
the Old black Cherry No. 7  
And on the Stocks at the back  
of the Car house Mr McCalmonts  
Plum



March 1811

16 Ther at 8½ AM. 38.

Found in Looking at *Confervae*

brought from the pond Seve

-ral *Animalculae*

*Gonium polyspharicum*



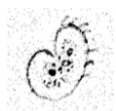
A mass of Globules revolving  
in various ways around the  
centre

*Enchilis pyrum*



Turning and moving backward  
and forward

*Trichoda puler*



A sailing motion

*Trichoda bomba*



A sailing motion, then hal  
-ting and turning moving then

*Vorticella polymorpha*



Black with a sailing

motion

*Sibrio diffluens*



Turning, folding, and ex-  
-panding

Grey with a Sailing motion



57

March 1811

17 Ther at 11 AM. 47 Fine day

*Fragaria sterilis Ranunculus*

*Ficaria* Flow. Fieldfares returned

18 Ther at 8 AM. 44½. Some Rain

19 Ther at 8 AM. 37 Rain at Night

Went to Lisburn

*Polytrichum* } pedicle

*Bryum* } shoots

not at

their full

height

20 Ther

58

20 Ther at 9 AM. 51. Misty rain

Found in the water of the pond among

*Conferva*

*Nais proboscidea* See Figure

*vermicularis* See Figure

*Volvox sphaerula*

*pileus*

21 Ther at 8 AM. 40. Fine day

*Anemone Nemorosa* Fl.

*Narcissus Pseudo Narcissus plena*

22 Ther at 9 AM. 44 Fine day

*Gagea Lutea* yellow Star of Beth

-lehem.

23 Ther at 8 AM. 38. Fine day

Alexs Cow Calved

24 Ther at 8 AM. 39. Fine day

Examined the Flowers of the *Betu*

-*la Alnus*, and as the flowers are

Tetrandrous 4 petaled I agree the pro  
priety of Separating it from *Betula*

59

25 Ther at 8 AM. 44. Fine day

26 Ther at 8 AM. 42. Fine day

*Viola Canina*. Fl.

Found *Jungermania polyanthos*

In Flower at the Circular Moss SW  
of Seymour hill.

27 Ther at 8 AM. 44. Fine day

Roach appear at the Surface

of the pond

Sowed *Lepidium petraeum* at  
the Mount underneath the  
*Sempervivum Arachnoideum*  
*Allysum Uriticulatum* and  
*Cistus*, on the Mount at the  
Cut. *Hilianthemum*, and  
*Spartium* seed with the *Malva*  
found by D<sup>r</sup>. McDonnall where  
the farthest one was still

60

March 1811

- 28 Ther at 8½ AM. 46 Fine dark  
day  
*Andromeda Calyculata* } Fl.  
*Pulmonaria officinalis* }
- 29 Ther at 8 AM. 45. Dark Morn  
ing fine day
- 30 Ther at 9 AM. 44. Misty morning  
Fine day
- 31 Ther at 8 AM. 39. Misty Morn  
fine day

April

- 1 Ther at 8 AM. 42 Misty day

Made a figure of *Jungermania*  
*polyanthos*

- 2 Ther at 8 AM. 43 Misty Rain  
Went to Lisburn to buy Oats  
Dined at Mr Williamsons Lambeg  
Wheatear Come

61

April 1811

Ther at 9 AM. 53

- 3 On examining some pots in the  
Green house containing *Gladiolus*  
*Iris, Antholyza Cunonia, Babiana*  
*plicata, Amaryllis formossima.*  
which had been standing without  
being immersed in the earth in the  
Greenhouse as the rest of the plants  
although kept equally dry, indeed  
apparently much more so than  
pots containing the same species but plun  
-ged in the heath mold, in the pots  
which stood with their  
sides unprotected the roots were  
uniformly destroyed, in the plun  
-ged pots plants are in a  
good growing state

April 1811

4 Ther at 8 AM. 45 Fine day

5 Fine day

Went to Newbridge to attend

Mrs. Nath. Magees Funeral who

died with a Cancer in her breast

Canadian Medlar Flowering

Willow Wren Come and

Singing

Bought some of the Lough Neagh

Whitings in Belfast Market.

On counting the Branchiostegous

ray I found 11 on each side

12½ rays in the pectoral. 9 in

the Ventral with a horizontal

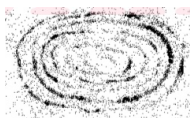
point

April 1811

pointed appendages 9 in the Anal

18 Caudal complete first dorsal of complete

Scales very small like this



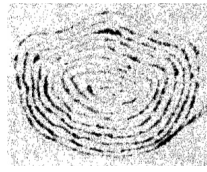
when Magnified

The *Salmo Wartmani*

Branchiostigous 9 Pectoral 15

Ventral 10 Anal 10 Caudal 18

Dorsal 11



Scale of this fish Magnified



Scale of a Trout Magnified

6 Ther at 8 AM. 48 Some Slight  
Showers of rain through the day Snow  
at Night

*Arabis Alpina* } Flowering

*Thaliana* }

7 Ther at 9 AM. 31 Snow 2 inches  
deep on the ground. Fine day

64

April 1811

8 Ther at 9 AM. 29. Ice on the  
pond near a Quarter of an Inch  
thick. Icicles 9 or 10 inches Long  
Some hail Showers

9 Ther at 8 AM. 34 Slight  
Snow Showers

10 Ther at 8 AM. 38. Fine day

some hail Showers

*Marchantia Conica* Fl

11 Ther at 8 AM. 35 Cold fine day

*Papilio Cardamines*

12 Ther Wet day

13 Ther at 8 AM. 54. Dry dark

day

14 Ther at 8 AM. 55 Gentle Show

-ers

*Narcissus Moschatus B* Smaller

White Spanish Narcissus

65

April 1811

15 Ther at 8 AM. 52. Gentle

Rain in the Evening.

16 Ther at 8 AM. 55 Showers

*Ranunculus amplexicaulis*. Fl

*Scilla Italica*

*Bifolia*

*Kalmia Glauca* Flower

17 Ther at 8 AM. 46 Dark dry

day

18 Ther at 8 AM. 46. Wet day

19 Ther at 8 AM. 49 Dry fore

-noon Wet at Night.



*Leocojum Vernum* } Flow.

*Caltha palustris* }

20 Ther at 8 AM. 45. Showers

*Scilla bifolia* } Fl

*Hyacinthus racemosus* }

*Musca domestica minor*

appearing.

66

April 1811

22 Ther at 9 AM. 53. Wet Evening

*Primula veris* }

*Orchis Mascula* } Flowering

*Glechoma Hederacea* }

*Scilla amoena* }

23 Ther at 8 AM. 56. Shower

in the Evening

Thunder pretty Loud both Morn

-ing and Evening

24 Ther at 9 AM. 55 Dark dry

day

Swallows arrived

25 Ther at 9 AM. 52. Fine day

*Gentiana acaulis* }

*Verna* }

*Ornithogalum nutans* } Flowering

*Cardamine pratensis*        }  
*Primula cortusoides*        }  
*Saxifraga*                        }  
*Epimedium Alpinum*        }  
*Gentiana verna*                }

67

April 1811

26 Ther at 8 AM. 50 Fine day

27 Ther at 8 AM. 49. Fine day

Cuckoo (*Cuculus canorus*) crying

Fieldfares not gone off yet.

*Veronica Chamaedrys* Flowering

Cow Parsley

Discovered among some Mosses

brought from the side of the

Sandstone Quarry at Seymour

hill

*Conferva castanea*

28 Ther at 9 AM. 47½ Wet Morning

Wet day and very wet Night

29 Ther at 8 AM. 48. Dark dry

day

*Pulmonaria virginica*

*Troillius asiaticus*

68

April 1811

30 Ther at 8 AM. 46½ Rain

in the evening

Went to the Cave hill.

*Scilla nutans* }

*Vicia sepium* } Flowering

*Asperula odorata* }

*Ranunculus auricomus* } In

*Fragaria vesca* } Full flower

Rail (*Gallinula Crex*) calling

[Pencil notes inked on next page]

69

May 1811

1 Ther at 8 AM. 54 Wet day

2 Ther at 8 AM. 53 A trifling

Rain in the Evening.

Swallows common

3 Ther at 9 AM. 56. Wet day

*Veronica montana* }

*Antirrhinum Cymbalaria* } Fl.

*Ivy leaved Snapdragon* }

*Podura aquatica* now begin

to cover the puddles about

Dunghills as if Gunpowder

had been strewn over it

4 Ther at 8 AM. 54 Slight Showers

*Spartium Scoparium* Common

Broom Flowers

5 Ther at 9 AM. 46. Rainy

6 Ther at 8 AM. 44 Very heavy

Rain, Stormy, great Floods

7

70

May 1811

7 Ther at 8 AM. 42. Dark day

with a Wet Morning

8 Ther at 8 AM. 44 Very Wet

day

*Sedum angustifolium*

9 Ther at 8 AM. 49 Fine day

10 Ther at 8 AM. 53. Wet forenoon

Swift come Mr Bourdeaux

Apple trees Flowering

*Scilla campanulata*

11 Ther at 9 AM. 54. A Slight

Shower

*Sedum Latifolium*

-

*Azalea Pontica*

*Tulipa Gesneri*

12 Ther at 8½ AM. 54 Wet day

13 Ther at 8 AM. 54.

Showery

Black Bird & Swift Come

71

May 1811

From the Edinburgh Review

Speaking of Mexico." We trust, that the basis of their governments will not rest on any distinction of Casts; that all men will have the same civil rights; and that the qualification for political power will be founded on property and not on blood. A qualification of property will effectually exclude from political power the inferior casts, who are at present unfit to exercise it, without prejudice to themselves and to the state, while such a qualification will affix a stigma upon no one, as long as industry and fortune may open to him the road to

power and preferment

Ed. Rev. Vol.16-93

72

May 1811

Same

The University of Edinburgh was the first in Britain, perhaps in Europe, into which the Newtonian Philosophy was introduced; and that of Glasgow the first in which the subject of Moral Philosophy was raised to the place which it is entitled to occupy.

So long as Northern is synonymous with Free - so long as it is applied to schools, where there are no statutes to prolong the dominion of error, no salaries to reward sloth and inactivity, - and no officers bound by duty or interest to refuse admission to the truth, - we shall hold it superior to all other titles of honour; and should sorely

grieve

73

May 1811

grieve to see it exchanged for the  
riches, the [dignities] or even the Climate  
of the South

Ed. Rev. Vol. 16. 168

Same

We did not say that poetry only  
is read in Classical education;  
but that the most valuable works  
which the Antients have left us,  
are there works of fancy; that  
these are, beyond all compari-  
-son, more read than their  
works either of History or  
philosophy; and that this,  
joined to the horrible absurdi-  
-ty of verse making, does (where  
classical education does not  
end in downright pedantry)  
often make it a mere culti-  
-vation

74

May 1811

-vation of the imagination  
at the expense of every other fa-  
-culty.

Ed. Rev. 16. 180

Same

What -- is the main object  
of most branches of human  
knowledge, if it be not to minis-  
-ter to the bodily wants of Man?  
What is the Utility of Mathema-  
-tics, but as they are brought to  
bear upon Navigation, Astro-  
-nomy, Mechanics, and so upon  
bodily wants? What is the  
object of Medicine? What of  
Anatomy? what greater pur-  
-poses have law and politics  
in view, but to consult our  
bodily

75

May 1811

bodily wants, - to protect  
those who minister to them,  
- and to arrange the con-  
-flicting interests and preten-



-sions which these wants

occasion?

Ed. Rev. 16. 185

- 14 Ther at 8½ AM. 59 A Slight  
Shower in the Evening  
*Geranium Sylvaticum*  
*Papaver Cambricum*  
*Carex paludosa*  
Received a blue striped Wrasse from  
Mr Sinclair
- 15 Ther at 9 AM. 55. Fine day  
*Papilio Egeria* White  
Spotted  
*Ranunculus repens*  
*Saxifraga umbrosa*
- 16 Ther at 8 AM. 60 Fine day  
Lilac Flowering  
Found at the point fields  
*Arca Nucleus*  
*Cardium ciliarc*

76

May 1811

- 17 Ther at 8 AM. 63. Thunder only  
a few drops of Rain, clouds very red to  
the East after sunset and found to the SW

March eyebright (*Pedicularis*

*Sylvatica*)

*Paeonia peregrina*

*Carex recurva* in Full Flower

White Throat (*Sylvia cinerea*)

Come

18 Ther at 8 AM. 59 Fine day

*Lychnis Dioica*

Horse Chestnut

Small Flowers of the White

Water Lily blown

19 Ther at 8 AM. 53. Fine day

after Windy night

Hawthorn }

Yellow Loose strife } Flowering

Sea Pink }

77

May 1811

From Humboldt Tableau

Physique

Journeyed over the level cultivated

country of Pastos, fertile in European

grain, though elevated, 9,300 feet

above the sea.

Edinburgh Review 16 - 228.

Crater of Pichincha 15-940

The Porphyritic Mountain 19-150

The Mouth of the Volcano of Coto-  
paxi was found to be only 260  
feet lower.

Passing a noble group of Porphyri-  
-tic columns they crossed the

Peula by a Bridge of Cords, and  
climbed to the Cuchilla de Guan

-disava a sharp ridge of Burnt

Rocks which [before] the dreadful Earth

-quake, were covered with a fine

forrest of Odorous Cedar. From that

base, they estimated the Volca-

-nic

78

May 1811

-nic Cone of Tunguragua to have  
the height of 16,500 feet above the  
Sea.

At last, after incredible exertions  
they reached, on the 23 of June (1797)  
the Eastern slope of Chimborazo,  
and planted their Instruments  
on a narrow ledge of Porphyri

-tic Rock, which projected  
from the vast field of unfathom  
-ed snow. A chasm, 500 feet  
wide, prevented their further  
ascent. The air was reduced to  
half its usual density and felt  
intensely cold and piercing.  
Its height ascertained from Baro  
-metrical observations, was 3,485  
than the elevation attained in  
1745 by Condamine, and 19,300  
feet above the level of the sea.

From

79

May 1811  
From that extreme station,  
the top of Chimborazo  
by trigonometrical measurement  
to be 2,140 feet still higher.

Ed. Rev. 16 228-9

Proceeding through the Village  
of Cumbe, near the great para  
-mo of Sarar, in which they  
stately *Melastroma* and *Embo*  
-*thrium* growing at an

elevation of 12,000 feet, they  
passed the fine Cascade of  
Uduchapa, by a road of half  
a mile in perpendicular de-  
-scent, and traversing the  
vale of Saragurie, which is  
2,900 feet lower than the ad-  
-joining wilderness, and forms  
altogether one of the richest  
scenes

80

May 1811  
scenes in the Andes, they en-  
-tered Loxa, a town famous for  
its commerce in the best sort  
of *Quinquina* or Jesuits bark;  
the trees producing which  
shoot up from the micaeous  
schist of the Neighbouring  
Mountains as a height from  
eleven to 15,000 feet above the  
level of the sea, and where the  
medium temperature ranges between 60  
and 70 degrees.  
Continuing their route through

a succession of native villages  
amidst groves of *Anona Chili*  
*moya* and Wild Citrons, and in  
site of the scattered vestiges of Peru-  
-vian palaces, they descended to  
the bed of the Cutaco, in a nar-  
row vale, at the vast depth of  
4,200

81

May 1811  
4,200 feet, and pressing forward  
through plantations of Sugar canes,  
they mounted again to the forest  
of Chulucanas, near immense  
ruins of the baths of the Incas,  
and, crossing the chain of Moun-  
-tains not far from the great  
Causeway which those princes  
had constructed, at the height  
of two miles, along the ridge  
of the Andes, from Cusco to  
Assuay and Caxamarca, they  
advance to San Filipe, having  
with infinite difficulty, saved  
their instruments and collec-

-tions.

p. 229

Caxamarca, in the midst of a plain which yields prodigious crops of Barley, though at an elevation of 9,370 feet

In

82

April 1811

In April 1803, they an excursion from Acapulco to Tasco, the seat of the noted mines, in a region clothed with Oaks and Pines, and treeferns, and yielding, at the height of 6,000 feet, abundant crops of Barley and Wheat.

Mexico, standing at 7,475 feet above the level of the sea, enjoys a mild climate, its mean temperature being only 62½ degrees of Fahrenheits scale.

p.230.

Returning to Mexico by the plain of Toluca, they saw the trunk of the famous hand leaved

tree, or *Cheirostemon platan-*  
*-oides* the only individual  
found in New Spain and  
which is of immense Antiqui  
*-ty* and nine yards in circum  
*-ference*

83

May 1811  
*-ference*. They climbed to the  
highest peak of the adjacent Moun  
*-tain* and found it to be 15,000  
feet above the level of the Sea;  
its crater was into a Lake,  
at an elevation of about  
12,000 feet, from which flow-  
*-ed* a River having the tem  
*-perature* of 48 degrees  
In the Month of Jan.<sup>y.</sup> and Feb.<sup>y.</sup>  
1804 they made excursion to the  
Nevado, or snowy height of Iz-  
*-taccihinati*, whose summit  
is 15,710 feet above the sea; to  
the Puebla de Los Angeles,  
the capital of an intendency;  
to Cholula a city at the foot



of the famous antient pyra

-mid, and thence to the Lla

-no de

84

May 1811

-no de Tetimpa, from this pla-

-in, the entire elevation of the

crater of Popocatepetl, or the

smoky mountain was ascer-

-tained to be 17,735 feet; and,

lastly, to the square top of the

mountain behind Perote, at

the height of 13,425 feet. They

halted at the city of Xalappa,

in a charming climate and a

situation romantically beau-

-tiful; near which rises, at

the height of 17,390 feet above

the level of the sea, the Snowy

peak of Orizaba, called, in the

Mexican language, the Star

Mountain from the distant

appearance of its flame.

Thence they proceeded to Vera

Cruz and embarked for Havanah.

In

May 1811

In the year 1788 a very active  
 Monk rector of the Village of No-  
 -vita, caused his flock to cut a  
 small canal in the torrent of  
 Raspadura, which connects  
 the San Juan with the Ri-  
 -vulet of Quito, and of the bran-  
 -ches of the Atrato. Canoes,  
 laden with Cacao, have, after  
 copious rains actually pas-  
 -sed from the one sea (the  
 Atlantic to the Pacific) other  
 a distance of at least 250 miles.

E. Rev. p.233.

Between the bay of Cupica and  
 the River Atrato, is the only point  
 of South America where the  
 chain of the Andes is interrup-  
 -ted. Cupica itself is a small  
 bay and harbour. In the interior  
 of

May 1811

of the province of Choco, celebrated for its gold mines, there is a small ravine, called Raspadura, lying between one of the sources of the River St John and the River Qui-to, which empties itself into Atrato. In this Ravine a communication by water from the Pacific to the Atlantic, though never heard of in Europe has existed since 1788.

Ed. Review 16. p.96

The lofty chain of the Andes, running along the western coast of America, extends on both sides of the Equator to near the 30th degree of Latitude. It is of unequal height; sinking, in some parts to 600 feet from the level of the sea, and, at certain points

87

May 1811  
points, towering above the clouds to an elevation of almost four

miles. The Colossal Chimborazo lifts its snowy head to an altitude which would equal that of the Peak of Teneriffe though placed on the top of Mount Etna. The Medium height of the Chain under the Equator may be reckoned at 14,000 feet, while that of the Alps and Pyrenees hardly exceeds 8,000; its breadth is proportionately great being 60 miles at Quito, and 150 or 200 in Mexico, and some districts of the Peruvian territory. This stupendous ridge is intersected, in Peru and New

Granada

88

May 1811

Granada, as we have seen, by frequent clefts or ravines, of amazing depth; but, to the north of the isthmus of Panama, it softens down by degrees, and

spreads out into the vast elevated plain of Mexico.

p.233 - 4

Beds of coal are found in the neighbourhood of Santa Fe, 8,650 feet above the level of the sea; and even at the height of 14,700 near Huanuco in Peru.

Fossils, shells, which in the old Continent have not been discovered higher than the summits of the Pyrenees, or 11,700 feet above the sea, were observed in Peru, near Micuipampa, at the height, of 12,800; and again at that of 14,120, beside Huanca

-vilica

89

May 1811  
vilica, where sandstone also appears.  
The Basalt of Pichincha, near the City of Quito, has an elevation of 15,500 feet; while the top of the Schneekoppe in Silesia is only 4,225 feet above the sea, the

highest point in Germany where that species of Rock occurs. On the other hand, Granite, which in Europe crowns the loftiest Mountains, is found in the American continent above the height of 11,500 feet. It is scarcely known at all in the Provinces of Quito and Peru. The frozen summits of Chimborazo, Cay-ambé and Anitsana, consist entirely of Porphyry, which on the flanks of the Andes, forms a mass of 10 or 12,000 feet in depth. The sandstone near  
Cuenca,

90

May 1811  
Cuença, has a thickness of 5,000 feet; and the stupendous mass of pure quartz, on the west of Caxamarca, measures perpendicularly 9,600 feet. It is likewise a remarkable fact, that the Porphyry of these Moun

-tains very frequently contains  
hornblende, but never quartz  
and seldom mica

p. 235

In Europe the highest tracts  
of cultivated land seldom rise  
more than 2,000 feet, above the  
sea. But, in the Peruvian  
territory, extensive plains oc-  
-cur as an altitude of 9,000  
feet; and three fifths of the Vice-  
-royalty of Mexico, comprehending  
the interior provinces, present

a

91

May 1811  
a surface of half a Million of square  
miles, which run nearly level,  
at an elevation from 6,000 to 8,000  
feet, equal to that of cele-  
-brated passages of Mount Cenis,  
of St Gothard, or of the  
Great St Bernard.

p.236.

In the vicinity of the Andes, the

large clouds are not seen to  
rise higher than the 10 or 12,000  
feet above the sea; but small  
white or fleecy clouds, which  
the Inhabitants call  
sheep, are often observed float-  
-ing at a height of 25,000 feet.  
These Mountains are moisten  
-ed with perpetual dews. Hail  
and Snow fall, in certain sea-  
sons of the year, at the eleva-  
-tion of 12,000 feet; but, at that  
of

92

May 1811  
of 10,000 feet, hail appears, accom-  
-panied with thunder

p. 241

From the shores of the Atlantic  
to the heights of the Andes, the  
different kinds of plants fol-  
-low each other in almost re-  
-gular succession. Similar  
transitions on a small scale,  
are observed among the Alps



of Switzerland. Ascending these mountings from the lower valleys, we meet successively with Chestnuts, beeches, oaks, and then pines, which is covering a much broader space, advance till they become stunted, and gradually disappear, not far from the verge of perennial snow. To trace the Geography

93

May 1811  
phy of plants in the low grounds of Europe, is rendered peculiarly difficult by the activity of cultivation; but, in these boundless deserts each species still occupies its own distinct territory. The vine occupies a narrow belt towards the North of the latitude of 30 degrees. Chestnuts grow in the same parallel. Next succeeds the Oak which extends almost to the 60th degree of

Latitude. In this temperate  
Zone, wheat and barley are cul-  
-tivated. Oats prefer a colder  
climate; but will seldom thrive  
beyond the Latitude of 63 degrees

p. 242

In Europe, the several species  
of plants are commonly associ-  
-ated in large distinct masses;

but

94

May 1811

but within the tropics, the dif-  
-ferent vegetable tribes appear  
interspersed and blended in  
loose disorder. There are how-  
-ever, some partial exceptions.

In new Grenada, the *bambusa*  
and *heliconia* form continued  
belts; and the same disposition  
is observed in the *mauritia*,  
*Kyllingia* and the herbaceous  
*Mimosae*, that shoot up along  
the savannahs of the Orenocco,  
and in the Godoya, and *Bou-*

-*gain villeda* and the *Croton ar-*  
*-genteum*, which grow amidst  
the plains of the Amazons.

On the back of the extended chain  
of the Andes, and at the height  
of 10,000 feet, spread the *Brathis*  
*Junipurina*, the *Jarava*, the *Es-*  
*-collonia myrtilloides*, and especi-

pith

95

May 1811

pith affords the Indian a wretch-  
-ed sustenance for which he some-  
-times contends with the Bears.

But the American scenery is in  
general devoid of such uniformi-  
-ty. Under the equator, from the  
coast to the height of 3,000 feet,  
grow the *Scitamineae of Jussieu*,  
the Palms, the Sensitive plants  
and most odoriferous of the  
*Liliaceous* tribe. In that sul-  
-try Zone, where vegetation van-  
-tons in the rankest luxuriance,

appear likewise the *Theophrasta*,  
the *Hymenea*, the *Cecropia pel-*  
*-tata*, the *Allionia*, the *Cono-*  
*-carpus*, the *Convolvulus lit-*  
*toralis*, the *Cactus pereskia*,  
the, *Sesuvium Portulacastrum*,  
the *Toluiifera balsamum*, *Cus-*  
*-paria febrifuga*, or *quinquina*  
of Carony. Between 3,000

and

96

May 1811  
and 6,000 feet of elevation, occur the  
*Melastomae*, the *Clusia alba*, the  
*Prunus occidentalis*, the *Ficus*,  
the *Moraea*, the *Calicarpa*, the  
*Acrostichum*, the *Solanum*, the  
*Dolichos Croton* and the *Passi-*  
*-flora tomentosa*. Above those  
limits the Sensitive plant ceas-  
-es to appear. The Tree ferns  
range from the heights of 1,500 to  
that of 5,000 feet. The tracts which  
have an elevation from 6,000 to  
9,000 feet, and enjoy a mild tem-

-preture varying between 34° band  
72°, produce the *Fuschia*, the  
*Begonia*, and the *Columilla*.  
Towards the upper part of that  
Zone, the *Acaena*, the *Dichon-*  
*-dra*, the *Nierembergia*, the  
*Hydrocotile*, the *Nerteria*, and  
the

97

May 1811  
the *Alchemilla* cover the surface  
with fine herbage. This is the  
region of the Oak or *Quercus gra-*  
*-natensis*, which annually sheds  
its leaves, and, from an eleva-  
-tion of 9,200 feet, never descends  
near the equator below that of  
5,500, though it occurs, under  
the parallel of Mexico at the  
height only of 2,620 feet. The  
*Ceroxylon andicola* or wax palm,  
whose trunk is 180 feet high, grows  
on the mountains of Quindiu,  
from 6,000 to 9,000 feet above the  
sea. Beyond this limit of 9,000

feet, the larger trees of every kind  
cease to appear. Some dwarfish  
Pines, indeed, rise to near 13,000  
feet. The several species of the  
*Cinchona*, are scattered along the  
Chain of the Andes over an extent  
of

98

May 1811  
of two thousand miles, at an eleva-  
-tion from 2,300 to 9,500 feet, and  
therefore exposed to great variety  
of Climate. The *lancifolia* and  
*cordifolia* prefer the plains; the  
*oblongifolia* and *longiflora* occur  
somewhat higher; but the noted  
*quinquina* of *Loxa* and which  
Humboldt proposes to name  
the *Cinchona condaminea*,  
grows at heights from 6,250 to  
8,300 feet, where the mean tem-  
-perature varies between 59 and  
62 degrees on a bottom of Mica-  
-ceous Schist in the wood of Cax-  
-anuma and Uritucinga [Uritasinga]. This

precious shrub forms one continu-  
-ed forest on the eastern declivi-  
-ty of the Andes, as far as the  
province of Jaen, and the hills  
above the river of the Amazons.

The *Wintera* and *Escallonia* oc-

-cur

99

May 1811

-cur at an altitude from 9,200  
to 10,800 feet, and form scrub-  
-by bushes in the cold and moist  
climate of the paramos. Above  
the height of 10,500 feet, the arbo-  
-rescent vegetables disappear.

The Alpine plants occupy and  
elevation from 6,500 to 13,500  
feet: There grow the *Gentians*,  
the *Stoelina*, and the *Espeletia*  
*frailexon*, whose hairy leaves  
often afford cover to the shi-  
-vering Indians, when benight-  
ed in those upland regions.

The grasses appear at a height  
from 13,500 to 15,000 feet.

From the height of about 15,000 feet to the boundary of perpetual congelation, the only plants visible are Lichens, which

100

May 1811  
which cover the face of the Rocks, and seem even to penetrate under the snow.

p. 243 to 244

It is a most curious fact, that those plants which seem to constitute the natural niches of the Equatorial regions are never found growing spontaneously. The *Carica papaya*, the *Jatropha manikot*, the Plantain and Maize, were no where seen by Humboldt in the Wild state; nor could he discover the potatoe, though this invaluable root is, along with the *Chenopodium quinua*, cultivated in the high



country of New Granada. In  
the lower grounds between  
the

101

May 1811  
the tropics, the Natives raise Ca-  
-sava, Cacao, Maize, and Plan-  
-tains.

p.244.

Wheat under the Equator, will  
seldom form an ear below the  
elevation of 4,500 feet, or ripen,  
or ripen it above that of 10,800.  
Barley is made to grow some-  
-what higher; but then with  
the utmost difficulty. Between  
the altitudes of 6,000 and 9,000  
feet, lyes the Climate best suited  
for this culture of all kinds of  
European grain. In the same  
tract is raised the *Chenopodium*  
*quinoa*. From the Elevation of  
4,300 feet, to that of 6,200, grows  
the *Erythroxyllum peruvianum*  
whose leaves, called Cocca, being

mixed

102

May 1811

mixed with quicklime, serve to stimulate the exhausted force of the Indian, during his long and toilsome journies over the heights of the Andes. In the space between the altitudes of 9,800 and 13,000 feet, potatoes and the *Tropaeolum esculentum* are generally cultivated.

p.245

Oats are very seldom grown in the Mexican territory, where the Inhabitants, as do those of Spain and Barbary, commonly prefer barley for feeding their horses. The *Solanum tuberosum*, which, under the name of Papas, is cultivated along the whole chain of the Andes, seems to have followed the progress of the Peru-

-vian

103

May 1811

vian arms, from the Mountains of Chili to the high plain of Bogota, and to have been thence introduced into New Spain, soon after the conquest. It is planted in the highest and coldest grounds, and becomes the more productive in that Climate, as it does not require much humidity. The Potatoes of Quito and of Santa Fe grow to a large size and are of an excellent quality. Both the Mexicans and Peruvians can preserve them for several years, by merely destroying the principle of germination.

These roots, which have been exposed to the frost and then dried in the sun, are termed Chunu.

Beyond the heights where potatoes

May 1811

-toes are cultivated, there occur only Mountain pastures, which feed numerous flocks of Lama, goats, sheep and cows. The Hamlet of Antisana, elevate 3,800 feet above the plain of Quito, and 13,500 above the Sea, is unquestionably the highest inhabited spot on the surface of the globe.

p.247

But animals, as well as the vegetable tribes, shrink from the region of snow. Fish are particularly sensible to the approach of cold, though they can bear without inconvenience a degree of heat that is very surprising. They abound on the shores of the ocean; but become rare in the waters of

the

105

May 1811

the upland country.

In the higher Andes, the only inhabitant of the pools and Rivulets, is a small fish, the *Prennadilla*, a new species of *Silurus* and which Humboldt, at the suggestion of Lacepede, has denominated *Pimelodus Cyclopum*, about four inches long, not unlike the Water Newt, and of such a slimy disgusting appearance, that none but the poorest of the Indians will taste it. The streamlets in which it plays, have a tempreture of 50 degrees, and seem to communi-cate, by crevices through the sides of the Volcanic mountains, with collections of water lodged in caverns within the crater. According to the most authen-tic

106

May 18 11  
-tic testimony, the Volcanoes of Quito, and especially Cotopaxi

and Tungaragua, sometimes vomit fish in prodigious quantities, intermingled with mud. Whole fields have been covered by these eruptions; and the putrid remains have infected the air, and been supposed to breed infectious disease.

Ed. Review 16 Vol. p 248

107

May 1811

20 Ther at 9 AM. 56. Fine day

*Papilio Rapoe* flying about

21 Ther at 8 AM. 53. Fine day

*Paeonia tenuifolia* Flowering

22 Ther at 9 AM. 63 Fine day

*Rhododendron ponticum* } F1

*ferrugineum* }

Received from Mr Mackay

College Garden

1 *Dianthus Carthusianorum*

2 *Carex Michelliana*

3 *Cistus canus*

4 *Ononis rotundifolia*

5 *Ranunculus pamasifolia*

6 *Rubia peregrina*

7 *Veronica Alpina*

8

108

May 1811

8 *Asperula Taurina*

9 *Mimulus ringens*

10 *Lupinus arboreus*

11 *perrenis*

23 Ther at 8 AM. 55.

Thunder to the SE. only a

few drops of Rain fell in

Malone heavy rain ap-

-parently in the C. Down

24 Ther at 8 AM. 50. Heavy

rain in the Morning to 12

25 Ther at 9 AM. 58 Showers

in the Morning

St Brunos Lilly } Flowering

*Paeonia corrallina* }

26

109

May 1811

26 Ther at 8 AM. 58. Some Showers

*Iris graminea* } Flowering

*Sherardia arvensis* }

*Paeonia officinalis* pl }

*Jungermannia frichemanus*. Fl.

27 Ther at 8 AM. 60. Fine day

*Iris versicolor* }

*Rosa cinnamomea* } Flowering

*Alpina* }

28 Ther at 8 AM. 52 Very wet

night and day

29 Ther at 8 AM. 54.

*Iris Siberica*

30 Ther at 8 AM. 56.

*Orchis maculata* }

*Lychnis Flos Cuculi* } Fl

*Rhinanthus Crista Galli* }

31 Ther at 8 AM. 55. Dark

day apparently misty a

few drops of Rain.

## 110

June 1811

1 Ther at 8 AM. 55 Dark dry

*-ilium bulbiferum*

2 Ther at 8 AM. 58. Heavy showers

*Rosa Hibernica*

*Iris Pseudo Acorus*



3 Ther at 8 AM. 54 Slight Shower

4 Ther at 8 AM. 58. Wet day

5 Ther at 8 AM. 55 Showery

*Veronica officinalis* Flow

Went to Mr Harveys Nursery

Got there *Dodecatheon Media*

*Betonica officinalis*

*Iris Sibirica*

Cuttings of *Gnaphalium Stoechas*

111

June 1811

6 Ther at 8 AM. 58 Very heavy

Showers with Thunder

*Erysimum officinale* Fl

7 Ther at 8 AM. 58. Fine day

with a few drops of Rain

8 Ther at 8 AM. 58. Some showers

*Phlox ovata*

*Kalmia angustifolia* Flow

*Hieracium aurantiacum*

9 Ther at 8 AM. 58.

*Geranium sanguineum* }

*Azalea glauca* } Flow

*Digitalis purpurea* }

10 Ther at 8 AM. 54½ Windy

with Showers

Went to Carrickfergus

11

Went with Mr Hill Rowan &

Mr Obyrne to the Blackhead

*Euphrasia officinalis* }

*Trifolium procumbens* } In Flower

*Ranunculus bulbosus* }

*Acris* ----- } *Rosa*

112

*Rosa spinosissima* Flowering

Found a Specimen of *Phaloena*

*fuliginosa* near the Blackhead

On Returning found Mr McScim

-mon had got Specimens of

*Cottus Scorpius*

*Gadus Mustela*. This fish appears

completely distinct from the *G.*

*tracirratu*. In being of one uni-

-form Colour and its five beards

Its Character should be. Light

brown *Gadus* with 4 cirri on the

upper jaw and on the chin,

the first ray of the first dorsal fin

longest the rest setaceous without  
membranes, and the fin sunk  
in a sulcus.

This goes under the name of Codlick  
among the fishermen

113

There was also two specimens of  
*Blennius Gunellus*, The colour  
of the one was a light bay as in  
Donovans figure the other of a  
cineros brown as they are com-  
-monly seen about our shores

12

Went to the waterfall found  
on the Shaded rocks below the  
upper fall.

*Cyathea fragilis*.

*Hieracium paludosum* Flowering

*Trifolium striatum* } On the Slipping

Heavy showers } banks of Ramboy  
near Carrick

*Oniscus Oceanus* found washed up among the

Rocks at Carrickfergus Castle

13 Went to Lough Morn

14 Found on Ramboy a Specimen

of *Osmunda Lunaria*

Introduced to Mr Miller a young  
Gentleman desirous of cultiva-  
-ting Zoology.

Heard

114

Heard of a *Hoopoe* Bird being  
shot on the 21 of September  
on the Carrick shore  
Find also that the underneath  
Rare fish are known to the  
Carrick fishermen.

*Cephalus Brevis*

*Squalus mustelus* called

by them Stinkard

*Gadus tricerratus* called

Unicorn

*Lophius Piscatrix* called

Mally goon

*Raja rubus* called Dun-

-nies.

Among a parcel of Rays caught  
on the night of the 11 I found  
a Number of *Raja rubus*. one  
*R. Batis* and one of uniform ci-

-nereus brown and nearly smooth

115

On my way home I was met by  
John Chapman who brought  
a Note to inform me that  
my Aunt M<sup>rs</sup>. Kerr had died  
suddenly this morning.

*Rosa scabriuscula* Flowering

15 Arrived home about 9 O'clock  
AM Having slept at Mr  
Davisons  
Showery day.

16 Some Slight Showers

*Agrostema Flos Jovis* } Flowering

*Rosa tomentosa* }

116

June 1811

17 Ther at 8 AM. 60 Fine dry  
day.

18 Ther at 8 AM. 59. Fine day

*Lilium Pomponium Rubra*

19 Ther at 8 AM. 59. Fine day

*Spiraea salicifolia*

*Potentilla fruticosa*

*Phalangium Liliago Lesser*

grass Leaved Spiderwort

20 Ther at 8 AM. 50 Cold dark  
day with dust and Slight Show  
-ers

21 Ther at 8 AM. 50 Fine day

117

June 1811

22 Ther at 8 AM. 56.

*Centaurea Scabiosa*. Flowering

Received from Mr McScimmon.

*Cancer velutinum* }

*Gobio minutus* } Found at

*Blennius Gattorugine* } Carrickfer

*Sepia media* } gus

Grey Cleg (

23 Ther at 8½ AM. 57. A Few  
drops of Rain

Elder (*Sambucus nigra*)

24 Ther at 8 AM. 56 Heavy  
Showers

25 Ther at 8 AM. 60. Heavy  
Shower during the forenoon

26 Ther at 8 AM. 63. Very fine  
day

*Arenaria marina* Flow