

of N. America. The ranges of
the plants, to the East & West, viz
whether most found ^{are} in Greenland
& Western Europe, or in Asia
appear to me a very interesting
point as ~~showing~~ ^{trying to show} whether the
migration has been Eastward
or Westward. - Pray believe
me, that I am most entirely
conscious that the only way
of these remarks is to show
- Botanist what points a
non-Botanist is curious to
learn; for I think everyone
who studies properly a subject
often becomes unaware what
points the ignorant require

May 2 Down Farmborough Kent
June 8th
[1855]

My dear Sir

I thank you cordially for
your remarkably kind letter of
the 22nd ult.^o, & for the extremely
pleasant & striking manner in
which you have taken up
rather troublesome questions. I can
hardly tell you how much your
list of alpine plants has interested
me, & I can send in some
degree pictures to myself the plants
of your alpine summits. The
new Edit. of your Manual is
capital news for me: I know from

your paper has put me on the
track, but it would take too
space to append (Ea.) in bracket
to every European plant, & as
far as I am concerned this
would answer every purpose. From
my own experience whilst making
out English plants in our Manuals,
it has often struck me, how
much interest it would give
if some notice of their range
had been given, & so I cannot
doubt your American enquirers,
& beginners w^d much like to
know which of their plants were
indigenous, & which European.

Would it not be well in the
Alpine plants to append the
very same addition. Such
you have not sent me in
No. 3; though here, owing to
your kindness, I do not speak
selfishly, but merely for bene-
ficial purposes. I presume
Americana publico. - I presume
to be two hundred & give
in your Manual the habits of these plants found
West of Rocky mountains; & likewise
those found in Eastern Asia,
taking the Japanese (?) check, if
I remember right according to
Gmelin is the main partition
line of Siberia. Perhaps Siberia
note concerns the northern Flora

the proportional numbers of the
families. - Then I make out
for you somewhat that of the
indigenous plants the population
of the *Umbelliferae* is $\frac{36}{1798} = \frac{1}{49}$;
for without we know the
whole numbers, one cannot
judge how well close the
numbers of the plants of
the same family are in two
distinct countries; but very
likely you may think the
supposition. - Mentioning these
proportional numbers, I may give
you an instance of the rate of

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Braz 2
information. I am so very
glad that you think of tracing
up some article on geographical
distribution, for the area of the
manuscript strikes me as in
some points better adapted
for comparison with Europe
than that of the whole of N.
America. - You ask me to
state definitely some of the
points on which I much
wish for information; but I
really hardly can, for they are
so vague, & I rather
wish to see what results
will come out from comparison,

than have as yet defined
objets. I presume that like
other Botanists you could
give for some area, the
(being not introduced plants)
proportions to the whole of
the great leading families.

this in one point I had
(+ wished how ^{truly})
intended to tabulate from
your Book, but of course
I could have done it only
very imperfectly. I ~~am~~ should

also, of course have ascertained
the proportion to the whole flora
of the European plants (being
not introduced) & of the separate

great families, in order to facilitate
a means of transportation. By
the way I ventured to send
a few days ago a copy
of the Gardener's Chronicle, with
a short report of some trifling
appointment which I have been
trying in the form of seeds
to withstand sea-water.

I do not know whether it
has struck you, but it has
me, that it would be

advisable for Botanists to
give in whole numbers, as
well as in the lowest fractions,

To make, (according to my ideas
perfection perfect) one ought to
be told whether there are
other cases like those of
Europe or in ~~the~~
some known in, or would
not find in your area. —

But honestly I feel that
it is quite ridiculous my
writing to you at such
length on such subject, but
as you have asked me, I
do it gratefully, & write
to you, just as I should to
Hooker, who often laughs at

⁵⁰⁰⁰ of how vapour & fiddle they are
points, which I attempt to make (9
at, the reflecting on R. Brown &
Hooker's remark, that nearly idly
of population numbers of the great
families, & ~~at~~ in two countries,
showing that they were once
continuously united. I thought I
would calculate the population, of
for instance, the introduced
Composite in Brit. Britain to all
the introduced plants, & the result
was $\frac{10}{92} = \frac{1}{9.2}$. In our aboriginal
or indigenous flora the proportion
is $\frac{1}{10}$; & in many other
cases I found an equally
striking correspondence: I
then took your Manual, &

walked at the same quarter;
here I found ^{in the Committee}
an almost equally striking
correspondence. viz $\frac{24}{206} = \frac{1}{8}$ in
the introduced plants, and
 $\frac{223}{1798} = \frac{1}{8}$ the indigenous; but
then I came to the other
~~where~~ from here I found
the proportions entirely different
showing the the coincidences
the British Flora were
entirely accidental! —

Now with, I presume, since
the proportions of the species to
the genera, it shows an an

answer how many species each
genus contains; though I have
done this for myself. —

If it could not be too troublesome
to you not think it will be
very interesting, & give a very
good idea of your Flora, to
divide the species into 3

viz (a) species common to
groups, (a) species common to
the N^d world, stating, Europe
& Asia (b) indigenous species,
but belonging to genera found
in the N^d world, & (c) species
belonging to genera confined
to America or the New World.

the gen thought, ^{specifically} but
about you and exercise, ^{the} some
the good B. harist might
think of a race or variety; —
it again a species. The gen
had truth, thought having
knowing it well, in
position of ~~judging~~ it, in
discriminating from some other species.
Supposing the gen were inclined
to be so very kind as to
do this, & could (which I
do not expect) spare the time ~~of~~
as I have said, a man
capable to read such species
in any useful form sheets,

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Spec 2.
He unexpectedly, & I am sure
you have ^{better} good reason to
do so. —
There is one point, on which I am
most anxious for information; &
I mention it with the greatest
hesitation, & only in the full
belief that you will believe
me that I have not the
folly & presumption to take for
a second that you will ^{give} it,
without you can ~~send~~ it with very
little trouble. The point concerns
present interest no one but
myself, which makes the case wholly

different from geographical Distribution.
The only way in which, I think,
you possibly could do it with
little trouble, w^d be to bear in
mind, whilst consulting your Prof-
sheet of the manual, 3^d question,
& put a cross or mark to
the species, & whenever sending
a parcel to Hooker to let
me have such 10 sheets.
But this w^d give you the
trouble of remembering my
question, & I can hardly
hope or expect that you will
do it. - But I will just

mention that I want, it is,
to have marked the "close
species" in a place, so as
to compare in different
places better to some genera
have "close species," & for
other purposes to refer to
numbers. - I have attempted
to Hooker's help to ascertain
in a similar way better
different species of
the same genera in distant
quarters of the globe & an
variety at present varieties.
The definition I should give
of a "close species" was one

Gray 2
could give me the information (17)
desired, which, I may add,
I know must be vague. -

How can I apologise enough
for all my presumption, &
the extreme length of this
letter? The great - good nature
of your letter to me, has
been partly the cause, so that,
as in too often the case is
this would you be permitted
for your good deeds.

With hearty thanks

Believe me

Yours very truly & gratefully

Ch. Darwin

P.S. Thank you for answering my questions
about the distance of the Alps
& about interesting lower land
summits: I have no very good map,
but I cannot make what you
say tally at all, & suspect that
you have written wrong figures.
You say that the White Mts are
separated from the Green Mountain
(geographical?)
by 150 or 200 miles of intervening
lower country; & the Green Mts from
those of New York by about the
same distance, - which w. make
300 - 400 miles - Perhaps at
some future time, you would tell
me how this can be. -



Darwin, Charles. 1855. "Darwin, Charles June 8, 1855." *Charles Darwin letters to Asa Gray*

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