

Amble  
Feb 1889

Clondale Road, Croydon  
Feb. 27. 1889

Dear Sir J. W. Dawson,

I forward  
with this some memoranda  
which I have made on the  
second collection of metis  
sponges. They are much  
better than the first you sent  
me and considering their age  
and the character of the rock

They are remarkably well preserved. But in these compressed and frequently distorted and broken up specimens, I find it very difficult to recognize reliable generic or specific differences, and those which you have employed for dividing up Protospongia seem to me too variable to be entirely relied on. In P. tetranema, however, the four anchoring spicules appear to be constant in a number of specimens and the species seems a good one; in some specimens

of P. mononema there are indications of more than a single anchoring spicule, and in P. polynema, the number <sup>of</sup> the anchoring spicules is variable as a specific feature. In P. cyathiformis—a beautifully preserved specimen—there are four well marked anchoring spicules and I do not see how this can be distinguished from P. tetranema. P. coronata appears to be a well marked species.

I cannot even in these specimens satisfactorily



make out whether in the Lasi  
cladia? there are modified  
hexactinellids or not, but I  
still think it cannot remain  
under this generic name. In  
no 10. L. microneum there are  
clearly cruciform spicules.  
Cylindrospongia hispida, is  
I think, clearly a new form,  
but this generic term is already  
preoccupied, and so also  
is Echinosporgia.

With respect to these  
doubtful forms, I am quite  
ready to admit the proba-  
bility that they may be

distinct species though I cannot fasten on any good characters to distinguish them. As I could not add anything very materially new to the observations which have been already printed about these sponges I have merely jotted down a few notes in case they may be of any use. but I do not wish them to appear in print.

It would be very desirable to get the best preserved specimens properly



figured. The photos, which you have kindly sent me give a general idea of the outlines of the sponges but to represent their spicular structure accurately, it would, I expect, be necessary to have them drawn on an enlarged scale by a skilled artist.

In respect of the number or value of the species, the occurrence of this bed of sponges heparactinellid sponges at such a low

horizon is a very important fact and the discovery should be prominently brought forward by figuring the leading types in a scientific work like the Transactions of the Royal Society of Canada.

I shall wait until I hear from you before returning the specimens.

Mr. H. Dr. Ami has written to me at length respecting the specimens he obtained from the Utter

Shales; they are very peculiar  
forms and it is doubtful  
to what group they may  
belong.

Believe me to remain

Yours very truly

George J. Hinde