

width and concavity respectively; that of the pedicle valve is 7mm by 9mm by 3mm.

This species is very similar to *S. crispus* of the Niagara group as shown by a comparison of Hall's figures and the following measurements:

LENGTH	BREADTH	PROPORTION OF LENGTH TO BREADTH	NUMBER OF PLI- CATIONS ON EACH SIDE OF SINUS		
<i>S. vanuxemi</i> from Trilobite mountain, N. Y.					
6	8	1.34	2	Brachial valve	} Average size
7	10	1.43	3	Pedicle valve	
10	12	1.2	5	Pedicle valve very convex	
<i>S. crispus</i> , Niagara shale, Waldron Ind. <sup>1</sup>					
12	15	1.21	4	Pedicle valve	
11	15	1.36	3	Brachial valve	
<i>S. crispus</i> from Rochester shale, Niagara gorge, N. Y. <sup>1</sup>					
5.5	9	1.64	3	Pedicle valve	} Shells of this size are very abundant
4.5	9	2	2	Brachial valve	

As seen from the above comparisons and figures,<sup>2,3</sup> *S. vanuxemi* bears a closer resemblance to *S. crispus* of Waldron than it does to the Niagara gorge species. This similarity is specially noticed in the proportion of length to breadth and in the number of plications. The Waldron shells are also much more gibbous and thus approach *S. vanuxemi* more nearly than do the Niagara gorge specimens. But the cardinal area is much higher even in the young of all specimens of *S. crispus* examined than in any of *S. vanuxemi*. It is thus seen that while *S. vanuxemi* is apparently much more closely related to the western *S. crispus* than it is to the eastern, that its possible derivation from the western species could not have been a direct one.

<sup>1</sup>These measurements are from specimens in the paleontologic collections of Columbia University, New York.

<sup>2</sup>*S. crispus*. Pal. N. Y. 2:262, pl.54, fig.3a-k.

<sup>3</sup>*S. vanuxemi*. Pal. N. Y. 3:198, pl.8, fig.17-23.