1. Introduction
Petalodontiforms are a clade of chondrichthians, cartilaginous fish including sharks and rays, which had flattened bodies with petal-like teeth. They are known mostly from isolated teeth, which has led to major problems when trying to understand the taxonomy and physiology of these fish. Here, a rare collection of petalodontiform teeth are described.

2. Locality
A petalodontiform specimen (TCD. 31087) was collected from a calcareous laminated mud horizon in the Corgrig Lodge Formation (Fig. 1).

3. Materials and Methods
TCD. 31087 (Fig. 2), which preserves a series of petalodontiform teeth, was scanned using micro-computed tomography and resultant TIFFs were imported into SPIERS in order to render 3D models.

4. 3D Models
Tooth Morphotype 1

Tooth Morphotype 2

Tooth Morphotype 3

Tooth Morphotype 4

5. Classification
The teeth of TCD. 31087 have undenticulated triangular crowns (Fig. 3) characteristic of Petalodus and are most similar to those seen in P. ohioensis. However the teeth of TCD. 31087 three cristae, while those of P. ohioensis have between 6-8. Therefore it is identified as Petalodus cf. ohioensis.

6. Tooth Whorl vs Biting Adaption
The curvature in the teeth of Petalodus is thought to either accommodate tooth stacking in a whorl (Carpenter & Ottinger, 2018) or to allow for the opposing teeth in the opposite jaw to slide past one another during biting (Lund et al. 2014). TCD. 31087 has three teeth of Morphotype 1 stacked together in the same orientation and would limit the accommodation space from opposing teeth, supporting the idea that teeth were part of a whorl.