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## Findrassie

[NJ 207 652], [NJ 204 651]

### Highlights

Findrassie quarries produced some of the first of the Elgin reptiles to be recorded. The site is important because of the high quality of preservation of the specimens.

### Introduction

The site includes a series of largely overgrown pits in a wooded area about 1 km due east of Findrassie House. The Lossiemouth sandstones here have produced good remains of *Ornithosuchus* and *Stagonolepis*. The excellent quality of preservation of fossil remains makes Findrassie worth conserving in the hope of future quarrying operations.

The Findrassie quarries were worked on a small scale in the mid 19th century: Martin (c. 1860) wrote that 'the quarry is now seldom worked, except occasionally for the purpose of obtaining material for road-metal'. The Findrassie quarries do not appear to have been worked after the 1860s.

The first bones of *Stagonolepis robertsoni*, which Agassiz (1844) had previously described as a fish on the basis of some scales found at Lossiemouth, were collected at Findrassie around 1857 (Gordon, 1859, p. 44; also Murchison, 1859, p. 435). At the same time a fragment of jaw with long dagger-like teeth was also collected, and ascribed tentatively to *Stagonolepis* by Huxley (1859a, pp. 434–5). He later (Huxley, 1877, pp. 43–5, pl. 4, fig. 1) described it as the new genus and species *Dasygnathus longidens*. This has since been shown to belong to *Ornithosuchus* (Walker, 1964, p. 66).

### Description

The first quarry mentioned by Peacock *et al.* (1968, p. 69) [NJ 2072 6524] lies concealed in the southern part of Findrassie woods just beside a field. It is shallow and largely overgrown but exposes patches of hard siliceous sandstone, with occasional cavities produced by weathering.

A second set of pits (Peacock *et al.*, 1968, p. 69) [NJ 2045 6510] consists of three quarries, the middle one of which exposes a 7 m face of massive, hard, fine-grained sandstone, the top part being hard and siliceous and pinkish in colour with scattered larger quartz grains, and the bottom yellow to yellow-brown with rusty spots. There are several other small pits in the Findrassie woods and on the moor to the west of the wood, a large shallow quarry [NJ 2017 6496] shows massive, pinkish-brown sandstone with pebbles.

The East Lodge of the Findrassie Estate, where the first Findrassie specimens of *Stagonolepis* were found, is situated at [NJ 2074 6545], and the site where the find was made might be one of the remaining Findrassie quarries lying to the south and south-west of the entrance (Peacock *et al.*, 1968, p. 69), but it could now be filled (Walker, 1961, p. 106). Linn (1886) recorded that *Stagonolepis* was found 'in the more westerly' of a line of three quarries ?[NJ 2015 6495], but Peacock *et al.* (1968, p. 137) suggest a more easterly pit at [NJ 205 651] as the probable source of the reptiles.

The Findrassie specimens figured by Huxley (1877) are in the form of well-preserved moulds, but specimens in ELGNM labelled 'Findrassie' have bone preserved, which may indicate a different locality. There are occasional pebbles in the matrix of many slabs and the early specimens, at least, must have come from the base of the reptiliferous sandstone, in beds just above the ORS (Gordon, 1859; Walker, 1961).

### Fauna

**Archosauria: Crurotarsi: Pseudosuchia:**

Stagonolepididae

*Stagonolepis robertsoni* Agassiz, 1844 2 large individuals: NMS, ELGNM, AUGD; 1 small individual: ELGNM

**Archosauria: Crurotarsi: Ornithosuchidae**

*Ornithosuchus longidens* Huxley, 1877 1 individual: ELGNM

## Interpretation

The cranial remains of *Ornithosuchus* from Findrassie were originally named *Dasygnathus longidens* by Huxley (1877, p. 45): these were shown to belong to a carnivorous 'thecodontian' by Walker (1961, pp. 108–10) and synonymized with *Ornithosuchus* by Walker (1964, pp. 63–6). *O. woodwardi* from Spynie and Lossiemouth is the same as *Dasygnathus longidens*, but the better known name *Ornithosuchus* is used since *Dasygnathus* is preoccupied (a beetle named in 1819). The palaeobiology and relationships of *Stagonolepis* and *Ornithosuchus* are discussed in the Lossiemouth report.

## Conclusions

This is the locality of the holotype of *Ornithosuchus longidens*, as well as three individuals of *Stagonolepis* and the first known *Stagonolepis* bones (apart from scutes). Remains are usually excellently preserved moulds that give high-fidelity casts for study, and Findrassie is a better site than Lossiemouth or Spynie in terms of the quality of preservation, which gives it special conservation value.

## [References](#)