| 0 9 | | **Figure 12** shows a ring-tailed lemur. |

**Figure 12**



Table 5 shows part of the classification of the ring-tailed lemur.

**Table 5**

| Classification group | Name |
|---|---|
| Kingdom | *Animalia* |
| Phylum | *Chordata* |
| | *Mammalia* |
| | *Primates* |
| | *Lemuroidea* |
| Genus | *Lemur* |
| | *catta* |

| 0 9 . 1 | Complete **Table 5** to give the names of the missing classification groups.

**[2 marks]**

| 0 9 . 2 | Give the binomial name of the ring-tailed lemur.

Use information from **Table 5**.

**[1 mark]**

**Turn over ▶**

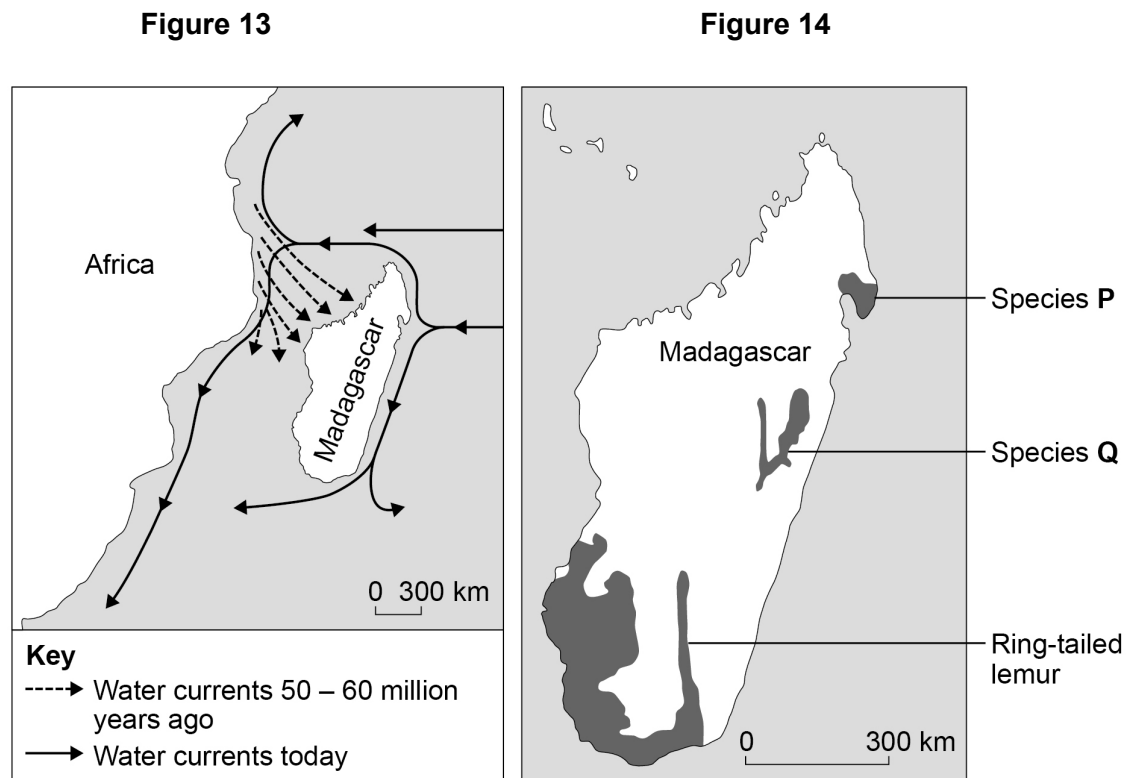Lemurs are only found on the island of Madagascar.

Madagascar is off the coast of Africa.

Scientists think that ancestors of modern lemurs evolved in Africa and reached Madagascar about 50-60 million years ago.

Today there are many species of lemur living on Madagascar.

**Figure 13** shows information about water currents.

**Figure 14** shows the distribution of three species of lemur on Madagascar.



**Figure 13**

**Figure 14**

| 0 | 9 | . | 3 | Suggest how ancestors of modern lemurs reached Madagascar.

**[1 mark]**

**0 9 . 4** Describe how the ancestors of modern lemurs may have evolved into the species shown in **Figure 14**.

**[5 marks]**

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**9**

**END OF QUESTIONS**

| Question | Answers | Extra information | Mark | AO / Spec. Ref. |
|---|---|---|---|---|
| **09.1** | <table><tr><td>**Classification group**</td><td>**Name**</td></tr><tr><td>Class</td><td>*Mammalia*</td></tr><tr><td>Order</td><td>*Primates*</td></tr><tr><td>Family</td><td>*Lemuroidea*</td></tr><tr><td>Species</td><td>*catta*</td></tr></table> | all 4 correct  = **2** marks<br>2 or 3 correct = **1** mark<br>0 or 1 correct = **0** marks | 2 | AO1<br>4.6.4 |
| **09.2** | Lemur catta | ignore capitalisation / non-capitalisation of initial letters<br><br>ignore italics / non-italics<br>ignore underlining / non-underlining | 1 | AO2<br>4.6.4 |
| **09.3** | carried by (favourable) currents on masses of vegetation | allow description of currents from Figure 13<br>ignore swimming | 1 | AO2<br>4.6.3.2 |

| Question | Answers | Extra information | Mark | AO / Spec. Ref. |
|---|---|---|---|---|
| **09.4** | isolation of different populations | | 1 | AO2 4.6.3.2 |
| | habitat variation  between lemur populations | allow examples – biotic (eg food / predators) or abiotic (eg temperature) | 1 | AO1 4.6.2.2 4.7.1.4 |
| | genetic variation or mutation (in each population) | | 1 | AO1 4.6.2.1 4.6.2.2 4.6.3.1 4.7.1.4 |
| | better adapted survive (reproduce) **and** pass on (favourable) allele(s) to offspring | allow natural selection **or** survival of the fittest **and** pass on (favourable) allele(s) to offspring allow gene(s) / mutation as an alternative to allele(s) | 1 | AO1 4.6.2.2 4.6.3.1 4.7.1.1 |
| | (eventually) cannot produce fertile offspring with other populations | allow cannot reproduce 'successfully' with other populations ignore cannot reproduce unqualified | 1 | AO1 4.6.3.1 4.6.2.2 |

| Total | | | 9 | |