## Morphoanatomy and size of male Alabio ducks (Anas platyrhynchos) reproductive organs of starter period

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Abstract	The testes are vital for spermatogenesis and steroid hormone production, thus serving as a critical biomarker for monitoring testicular function through organ development analysis. Until now, there has been no information on the morphoanatomical development of testicular organs in day-old Alabio ducks (DOD). This knowledge is crucial for optimizing reproductive strategies and manipulations. This study aimed to determine the growth and morphoanatomical development of testes in Alabio ducks during the starter period. A purposive sample of forty DOD male Alabio ducks was observed and measured weekly for eight weeks. Variables included testicular morphoanatomy, weight, liver weight, gonadal-somatic index (GSI), and hepatic-somatic index (HSI). Results indicate that bean-shaped, creamy-white testes are located in the abdominal cavity near the spine, attached dorsally and anterior to the kidneys. Testicular weight, length, reproductive tract weight and length, and GSI peaked at eight weeks (0.768 $\tilde{A}$ , $\hat{A}$ ± 0.06 g, 1.73 $\tilde{A}$ , $\hat{A}$ ± 0.20 cm, 0.79 $\tilde{A}$ , $\hat{A}$ ± 0.02 g, and 13.32 $\tilde{A}$ , $\hat{A}$ ± 0.65, respectively; p < 0.01). Testicular weight, liver weight, GSI, and HSI differed significantly weekly (p < 0.01). In conclusion, testicular weight in Alabio ducks increases steadily during the first eight weeks, with bean-shaped testes developing bilaterally in the abdominal cavity, attached dorsally and constrained by the mesorchial ligament.
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