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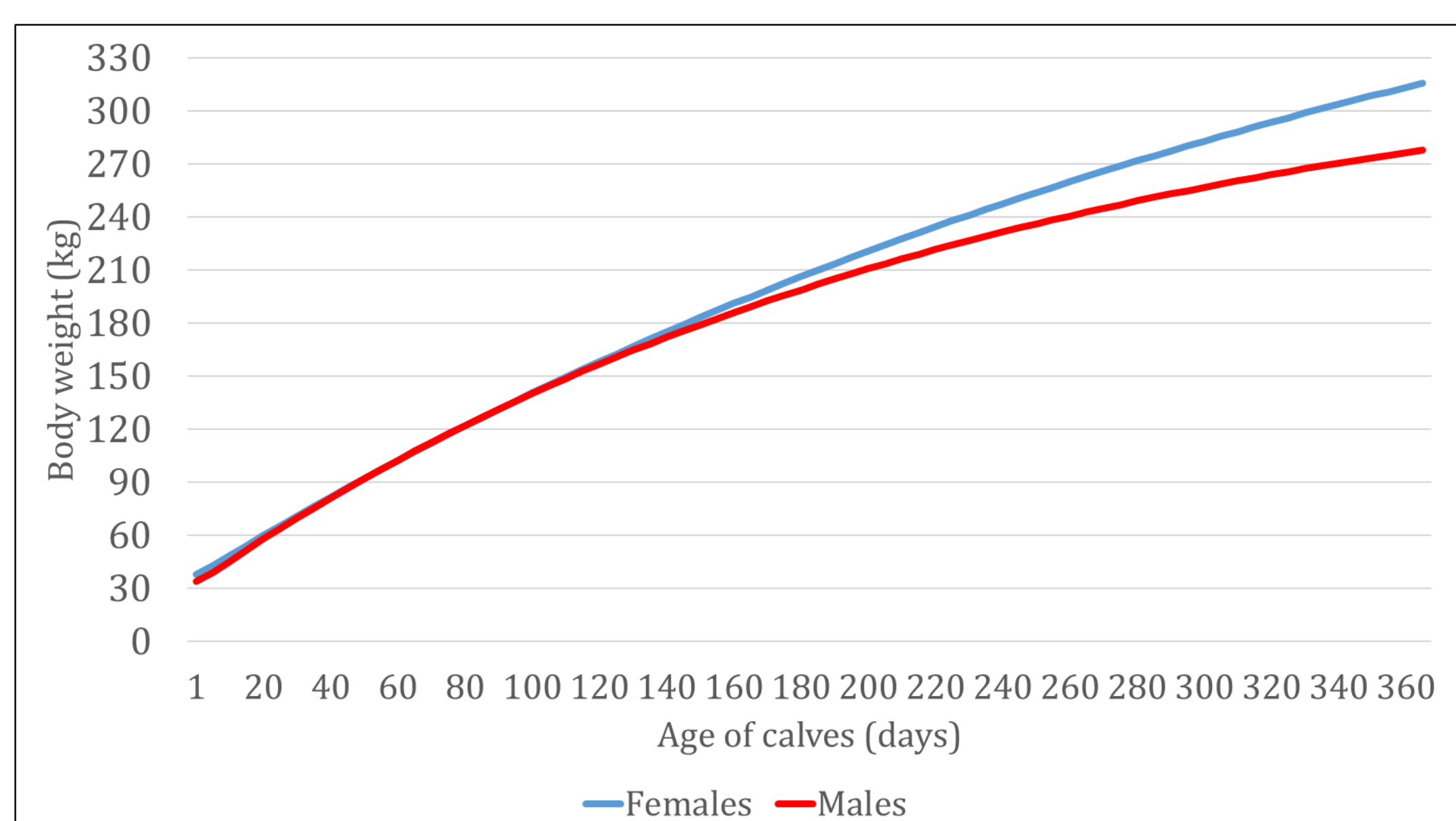
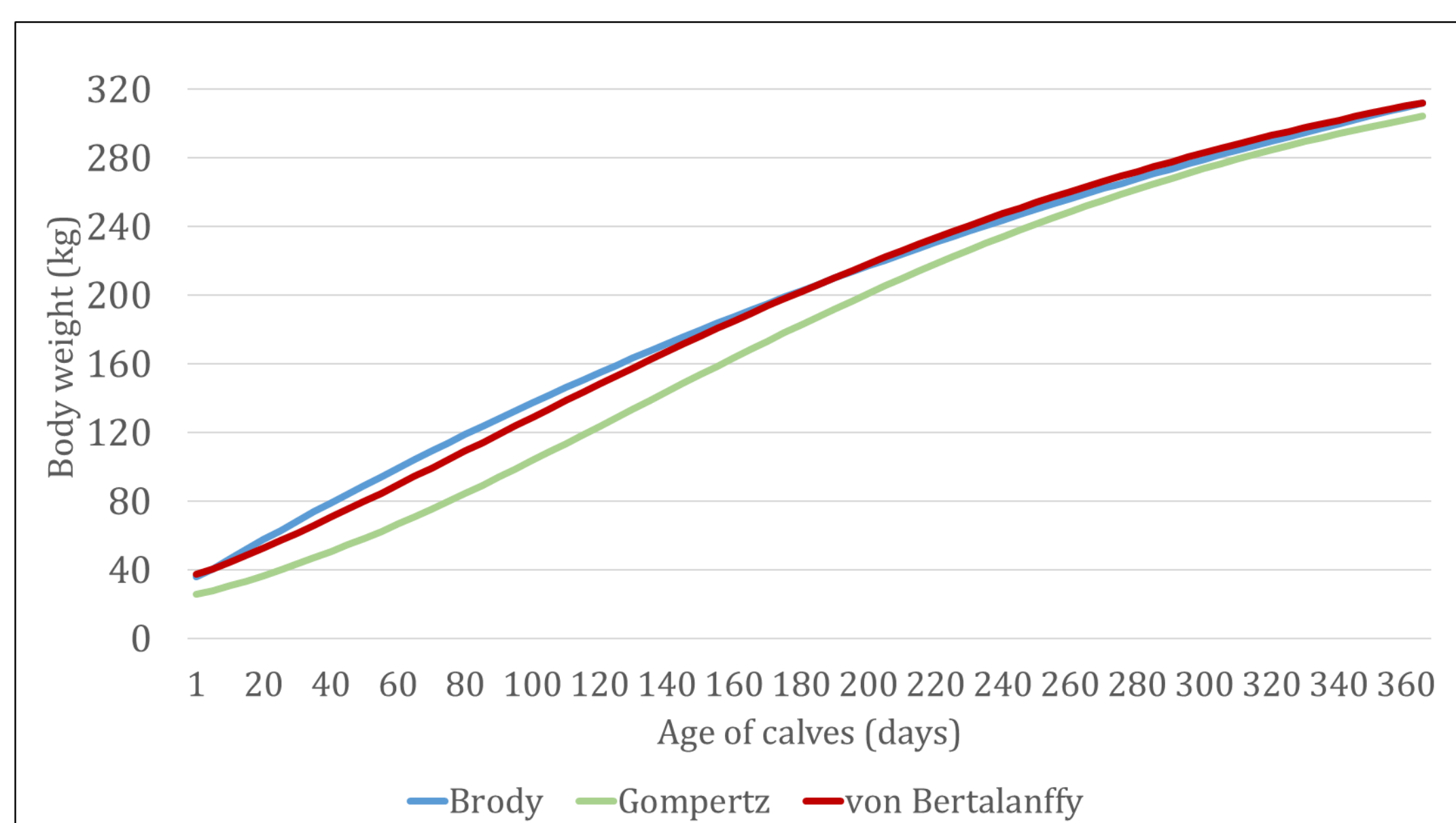
Study on growth performance of Aberdeen Angus calves in a farm in Gorj County

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Abstract: Researches were carried out in a private beef farm in Gorj County, on Aberdeen Angus youngstock. Data was collected from the official performance control services and consisted of the live body weight of calves at birth, 7 months (weaning) and 12 months of age. Based on this data, average daily gain and growth coefficient were calculated. In order to study the effect of calf sex on the growth performance the body weight data was modelled using four biological equations: Richards, Brody, Gompertz and von Bertalanffy. Because the Brody model gave the best estimates these were used in further analyses. For the whole Aberdeen Angus population, the average body weight was 32.9 kg at birth, 192.5 kg at weaning (7 months) and 301.9 kg at 1 months of age. The growth coefficient was 4.93% at birth, 30.42% at weaning and 52.78% at 1 months of age, from adult body weight. Average daily gain was 893.2 g from birth to weaning and 841.7 g from weaning to yearling. Calf sex had a significant influence on growth of Aberdeen Angus youngstock. Thus, at birth the males were 4.3% heavier than females, at weaning the body weight was similar in both sexes, while at 1 months of age females were about 26% heavier than males. In conclusion, we could say that in the studied farm female calves showed a higher precocity than males, showing a higher rate of growth, especially after weaning.

• Material and method

- Aberdeen Angus youngstock in a farm in Gorj County
- Performance control year 2021/2022
- Measurements: body weight at birth, 7 and 12 months
- Traits: body weight, average daily gain, growth coefficient
- Comparison between sexes: males and females
- Modelling using biological equations: Richards, Brody, Gompertz, and von Bertalanffy
- Study of growth curves using Brody model



• Results and discussions

- Whole youngstock population

Age	n	Body weight (kg)	Growth coefficient (%)
Birth	53	32.9±0.28	4.93±0.138
7 months	22	192.5±8.28	30.42±1.849
12 months	15	301.9±10.35	52.78±2.893
Age period		n	Average daily gain (g)
birth-7 months		22	893.2±32.79
7-12 months		15	841.7±25.01

- Effect of calf sex

Body weight (kg) at	Females	Males	Significance
Birth	32.2	33.6	0.009
7 months	190.3	196.3	0.741
12 months	310.5	246.0	0.028
Growth coefficient (%) at	Females	Males	Significance
Birth	5.86	3.96	0.001
7 months	34.60	23.10	0.639
12 months	56.44	28.95	0.583
ADG (g)	Females	Males	Significance
birth-7 months	905.2	872.1	0.639
7-12 months	836.1	878.5	0.583

• Conclusions

- Effect of calf sex on body weight at birth and 7 months of age, as well as on growth coefficient at birth
- No effect of calf sex on average daily gain
- Brody equation gave the best fit, Richards model had no estimates

