Adding year as a linear effect to the first winter survival changed the results quite a bit.

Hind is now only marginally significant, and adults are now slightly more significant than hinds.

while year is not always significant:

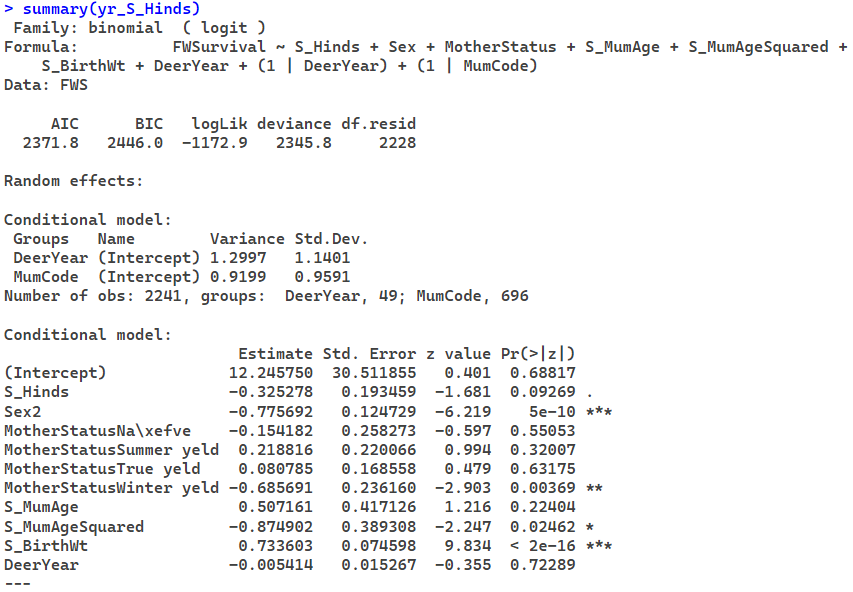
Yellow = significant

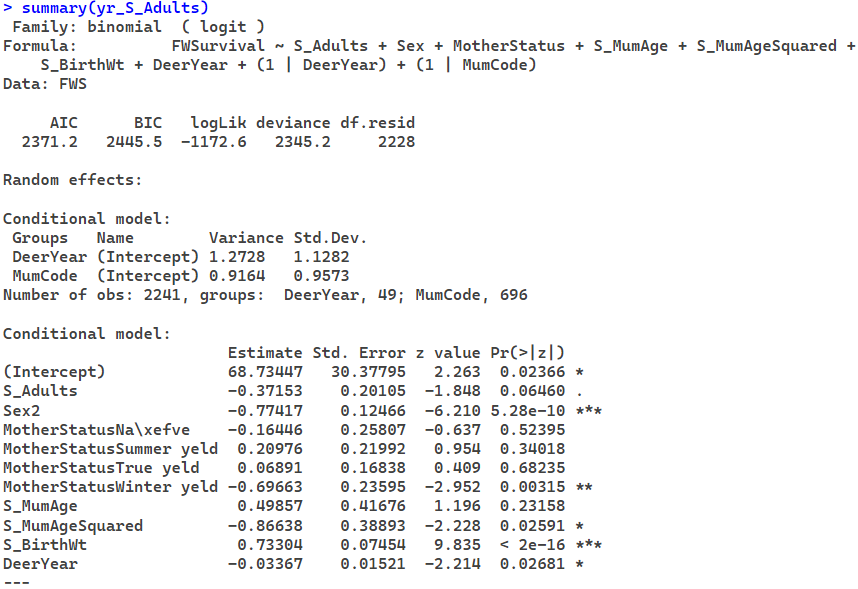
|  | **With birth weight** | | **Without birth weight** | |
| --- | --- | --- | --- | --- |
| **Density** | **Deer Year** | **Density** | **Deer Year** |
| **Hinds** | -0.325 (p=0.093) | -0.005 (p=0.72) | -0.325 (p=0.080) | -0.006 (p=0.70) |
| **Adults** | -0.372 (p=0.065) | -0.034 (p=0.027) | -0.372 (p=0.054) | -0.034 (p=0.021) |
| **Total** | -0.194 (p=0.49) | -0.024 (p=0.54) | -0.192 (p=0.23) | -0.025 (p=0.072) |
| **LU\_total** | -0.280 (p=0.19) | -0.031 (p=0.052) | -0.278 (p=0.17) | -0.031 (p=0.043) |

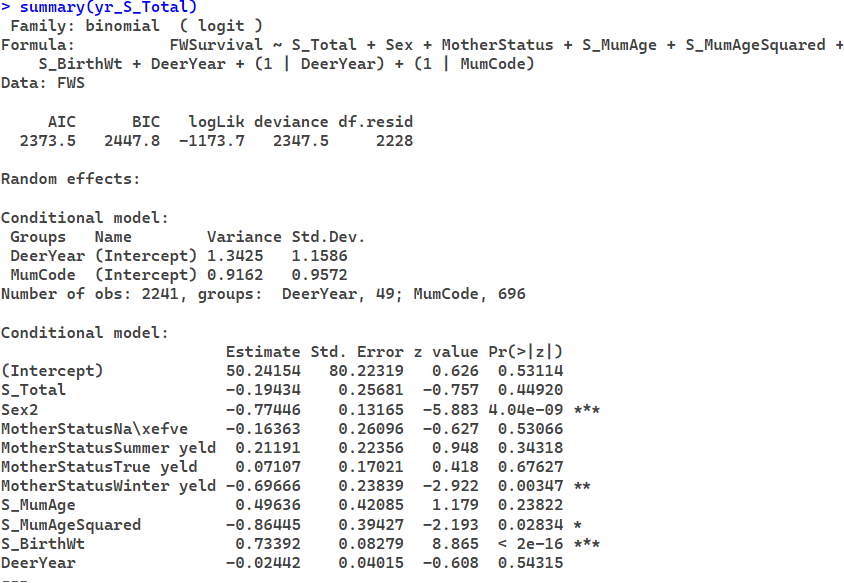
Compared to the models without additional year effect

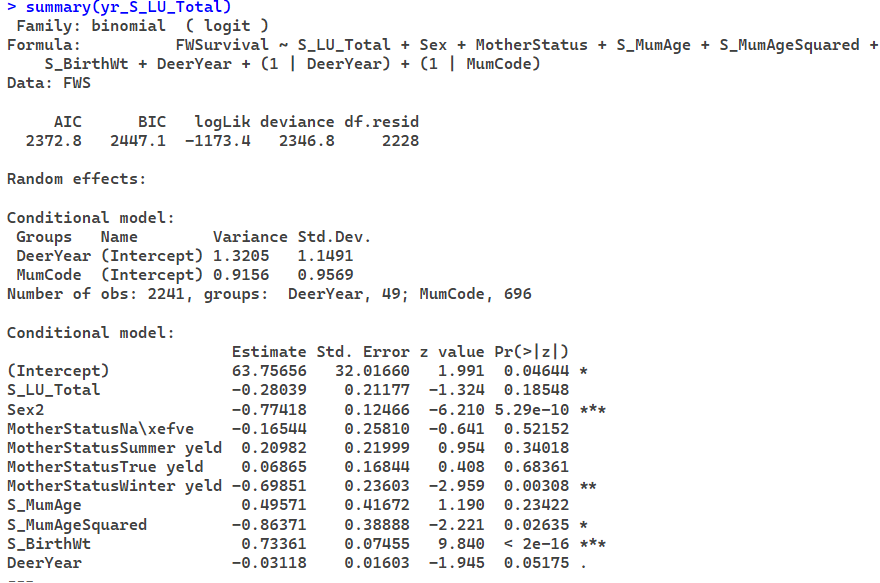
|  | **With birth weight**  **Density** | **Without birth weight**  **Density** |
| --- | --- | --- |
| **Hinds** | -0.36 (p=0.029) | -0.36 (p=0.023) |
| **Adults** | -0.14 (p=0.44) | -0.14 (p=0.42) |
| **Total** | -0.078 (p=0.66) | -0.075 (p=0.66) |
| **LU\_total** | -0.043 (p=0.81) | -0.041 (p=0.81) |

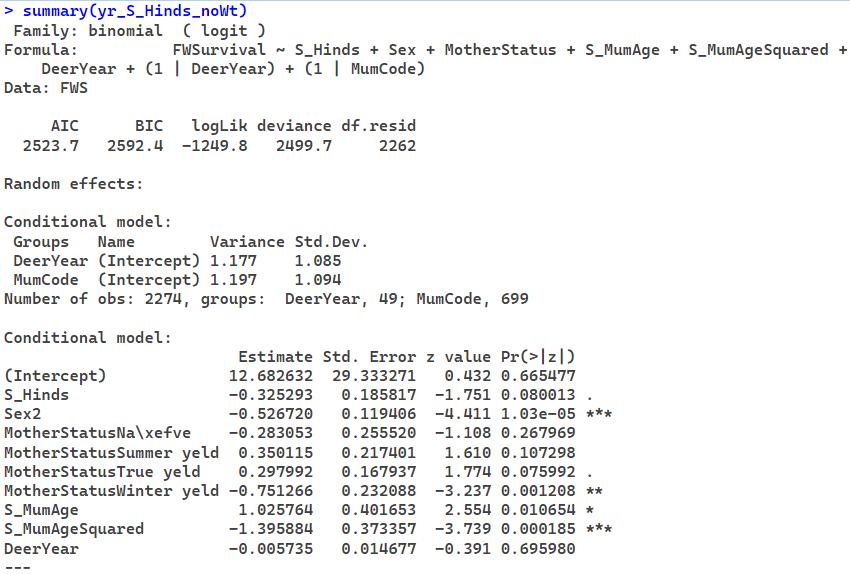
Models:

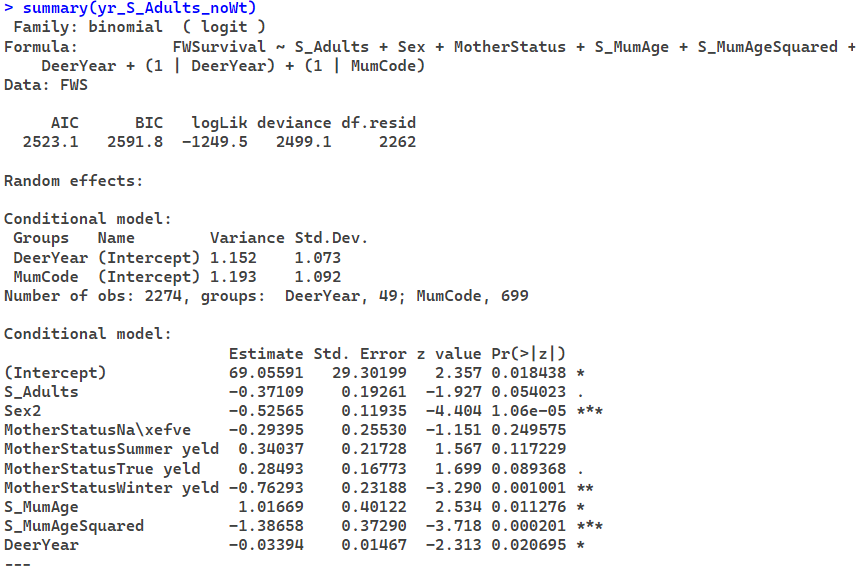
**Hinds with Year**

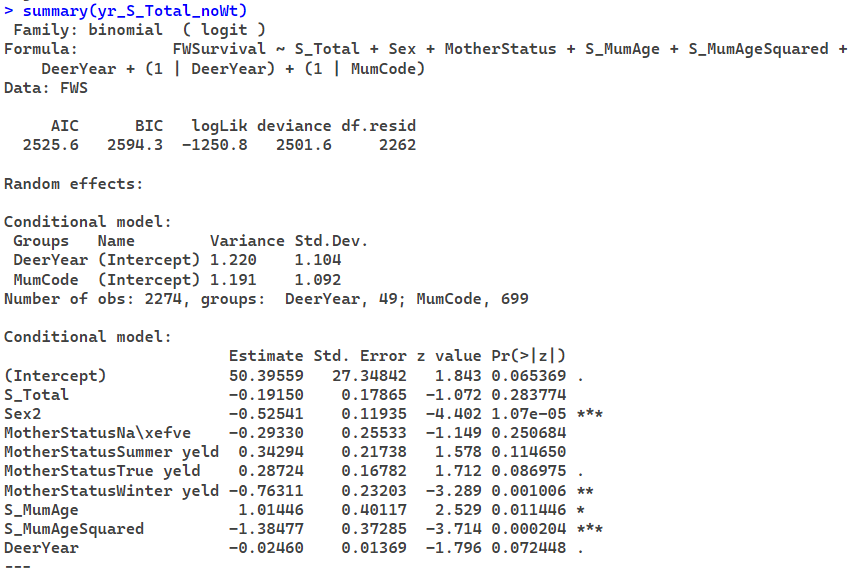
**Adults with Year**

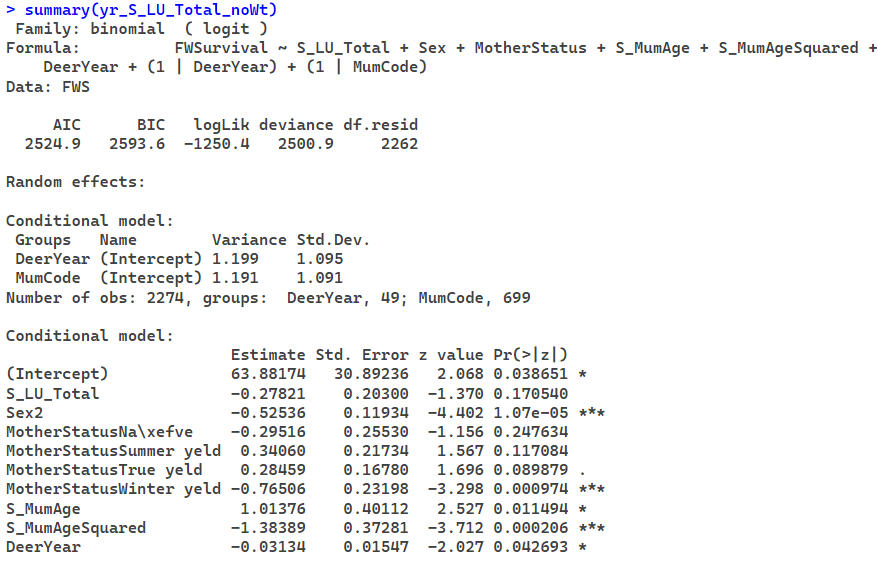
**Total with Year**

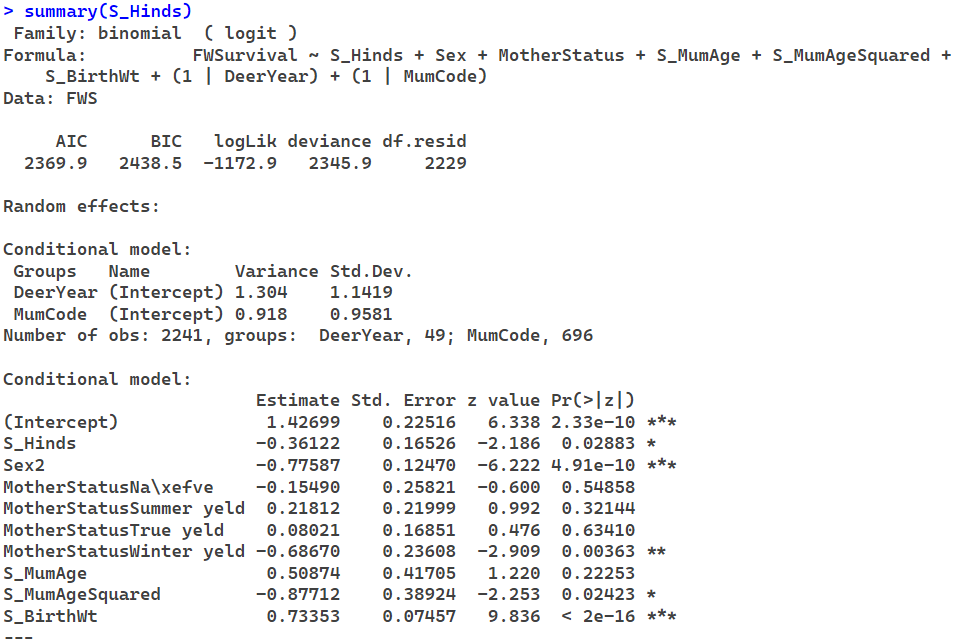
**Livestock units with Year**

**Hinds with Year without birth weight**

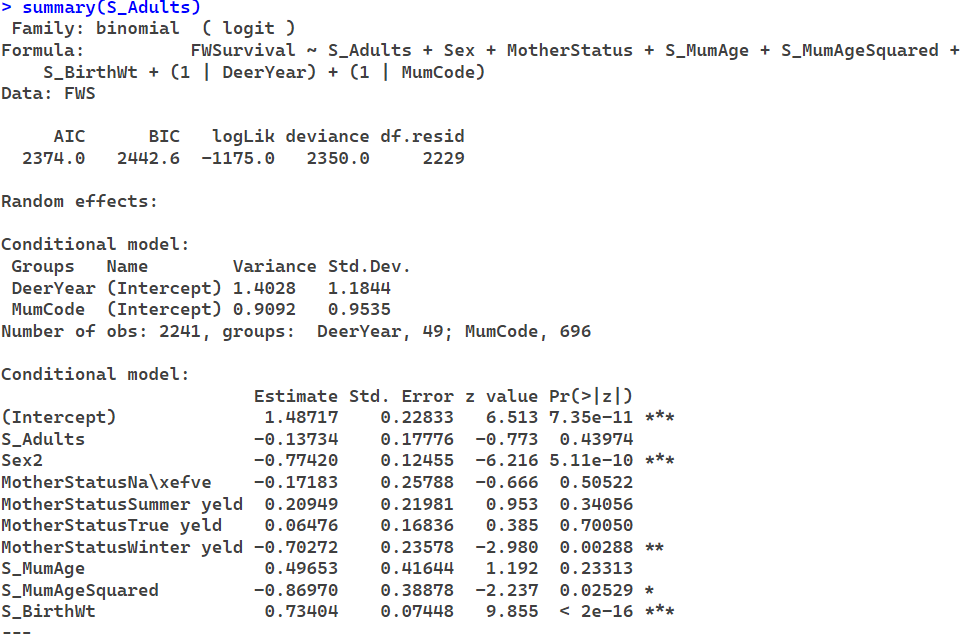
**Adults with Year without birth weight**

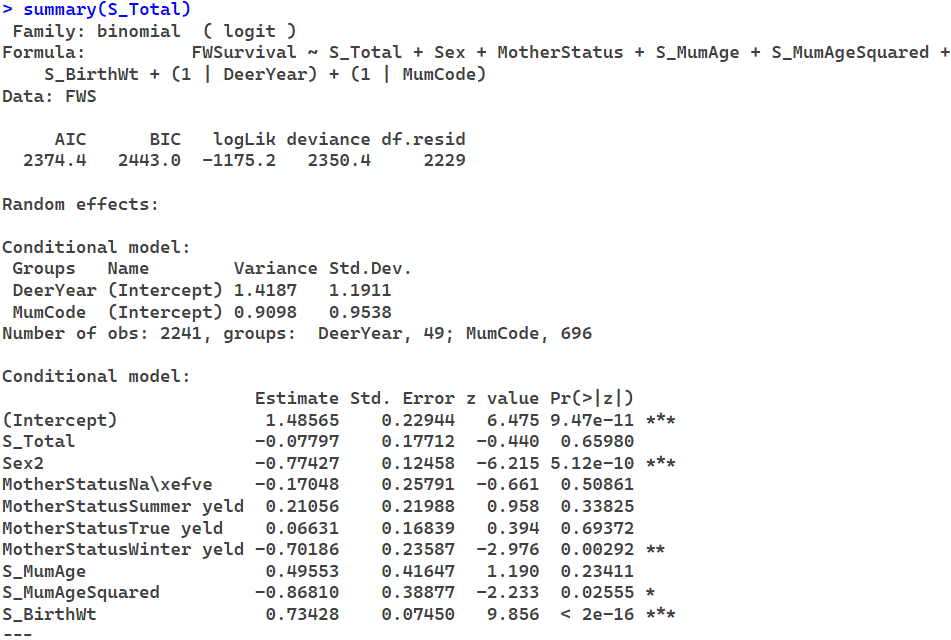
**Total with Year without birth weight**

**Livestock units with Year without birth weight**

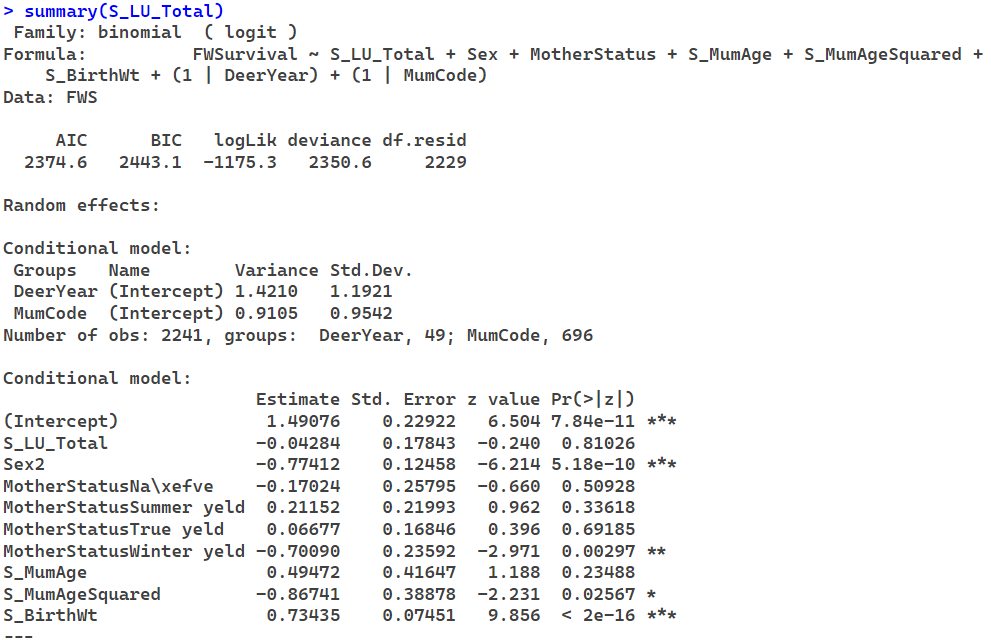
**Hinds without Year**

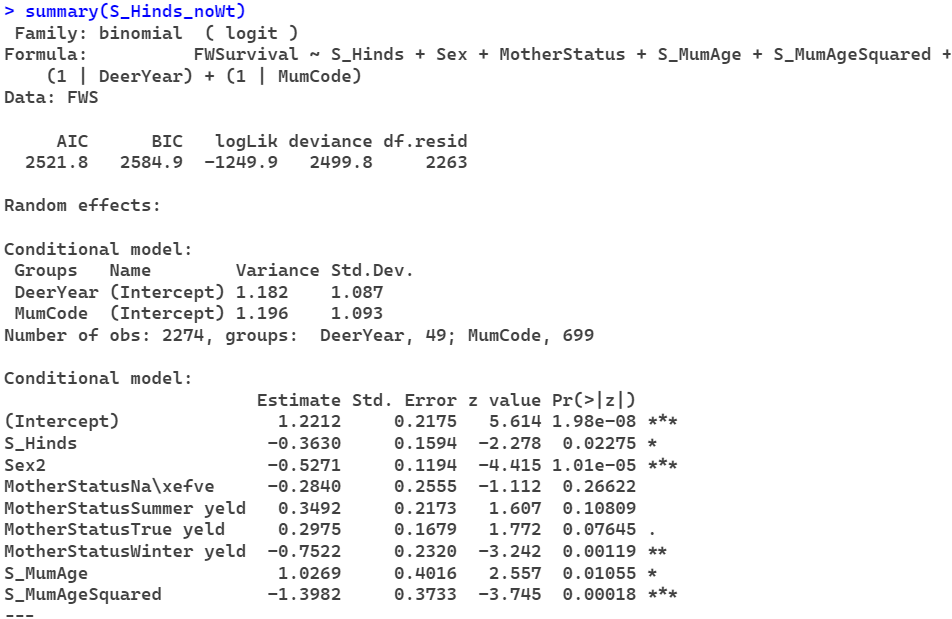
**Adults without Year**

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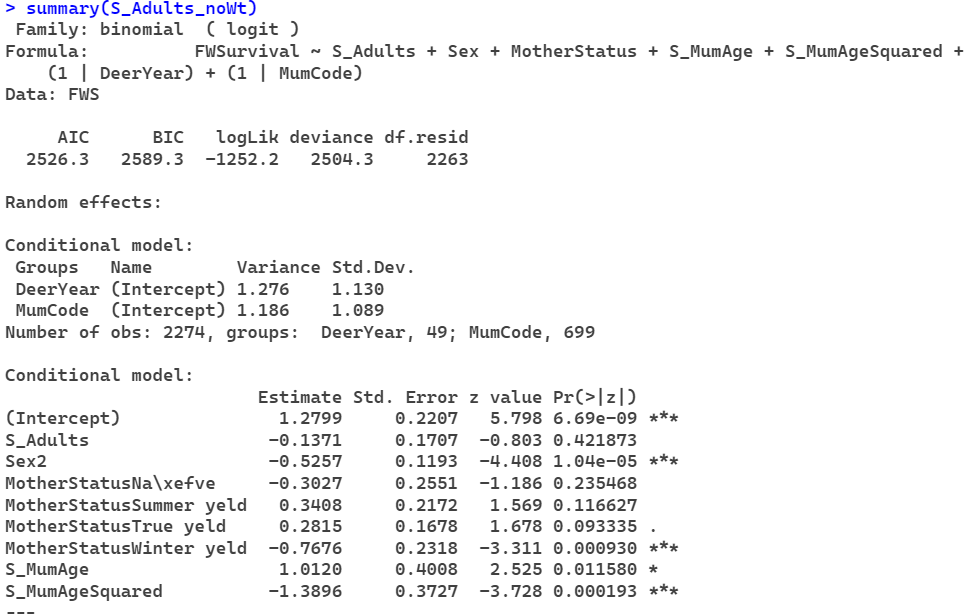
**Total without Year**

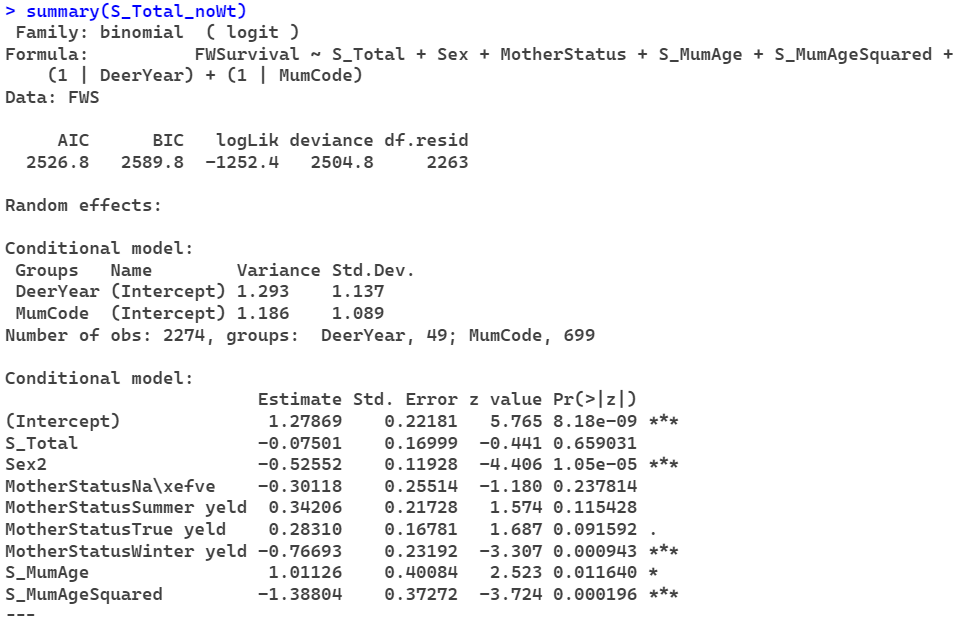
**Livestock Units without Year**

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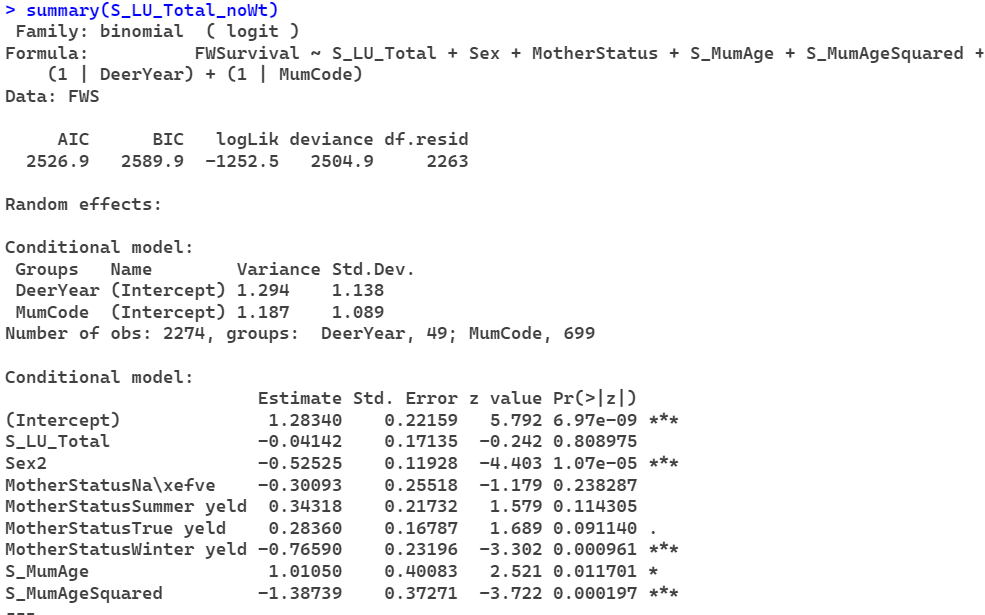
**Hinds without Year & birth weight **

**Adults without Year & birth weight**

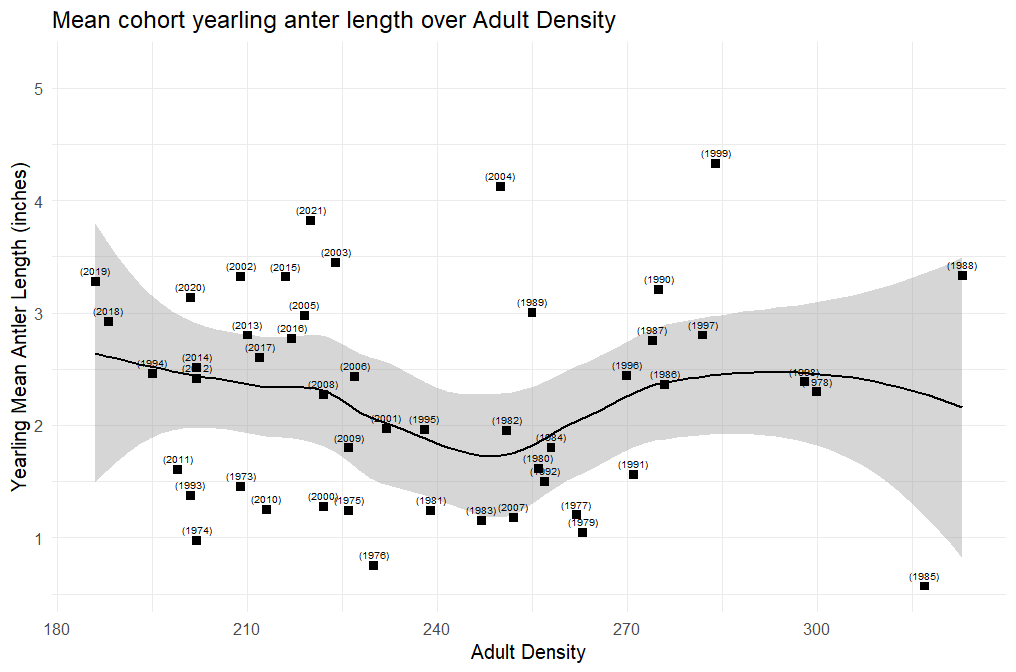
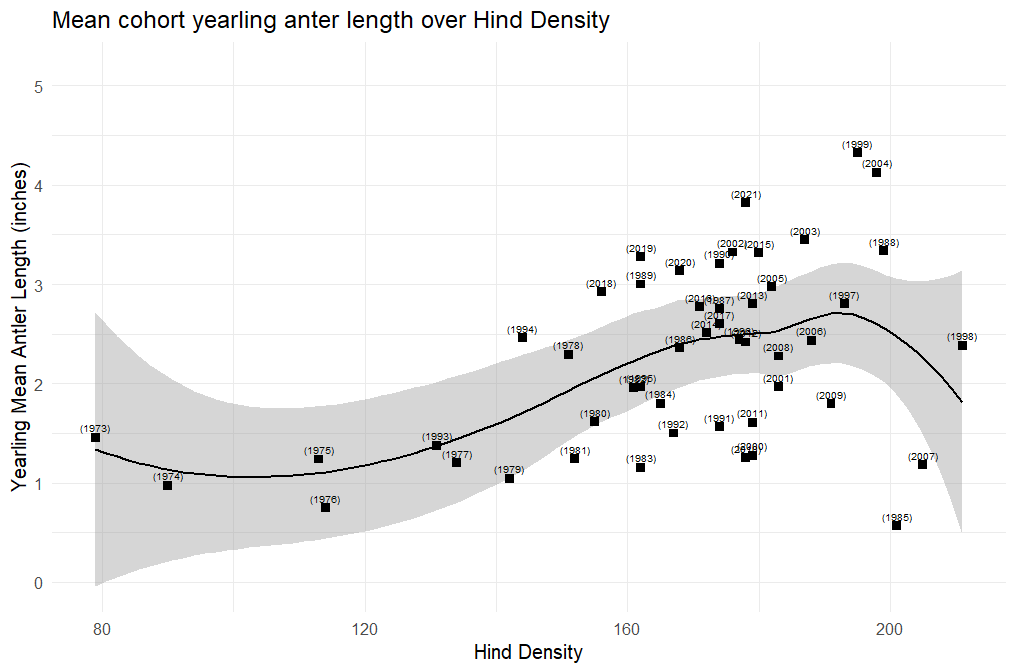
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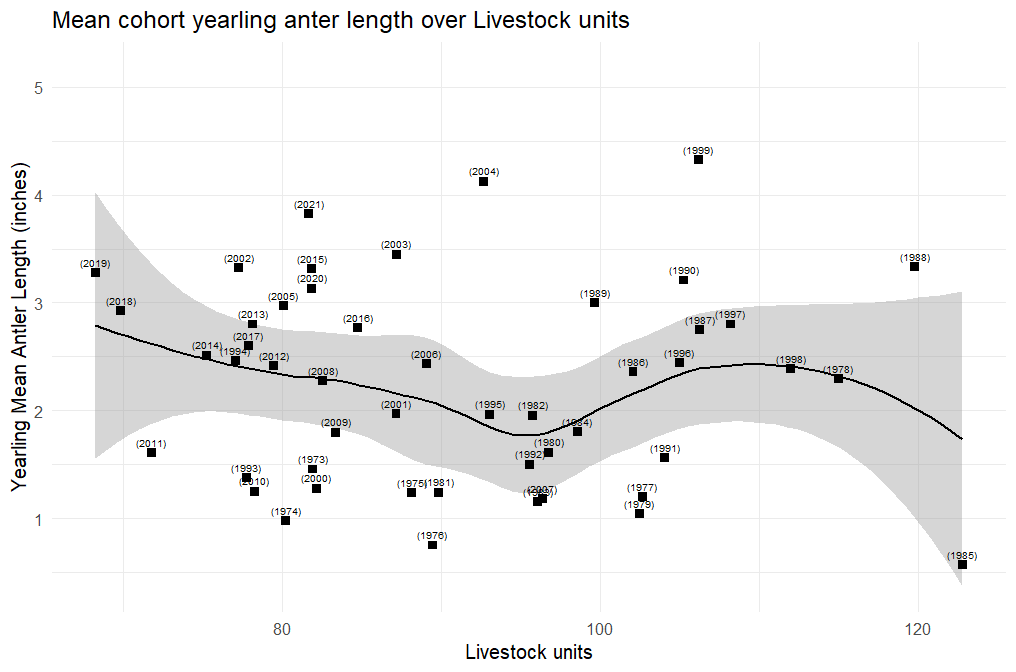
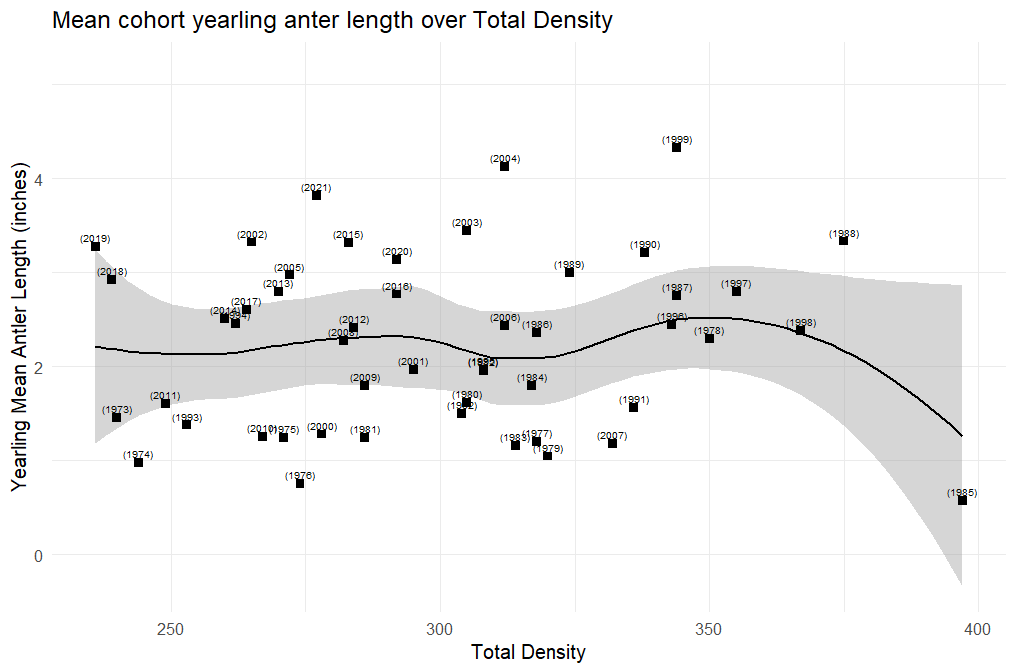
**Total without Year & birth weight**

**Livestock Units without Year & birth weight**

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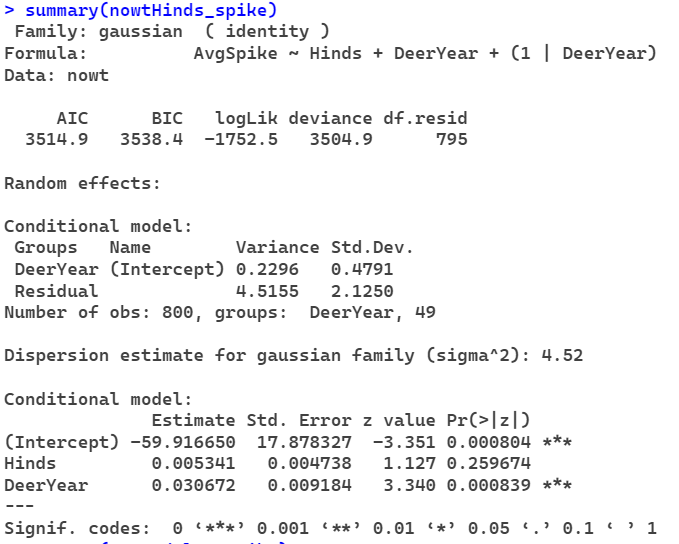
**Spike**

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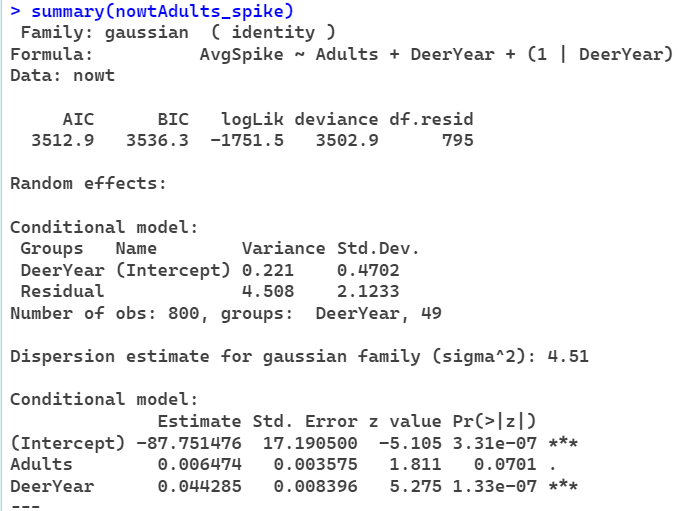
****

**1972-2021 With Year as linear**

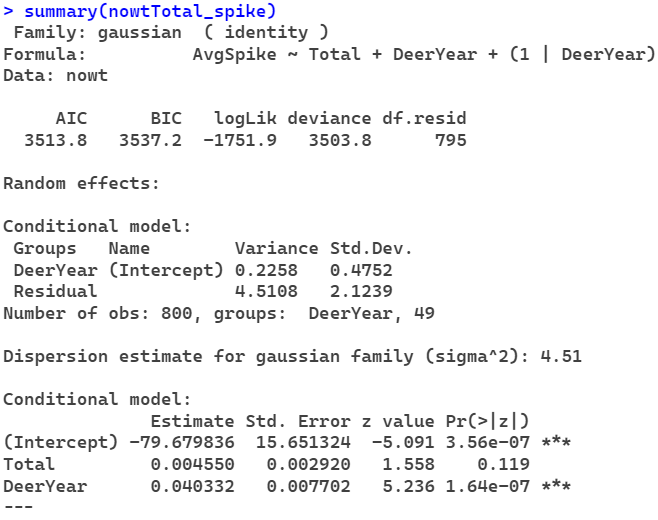
**Hinds**

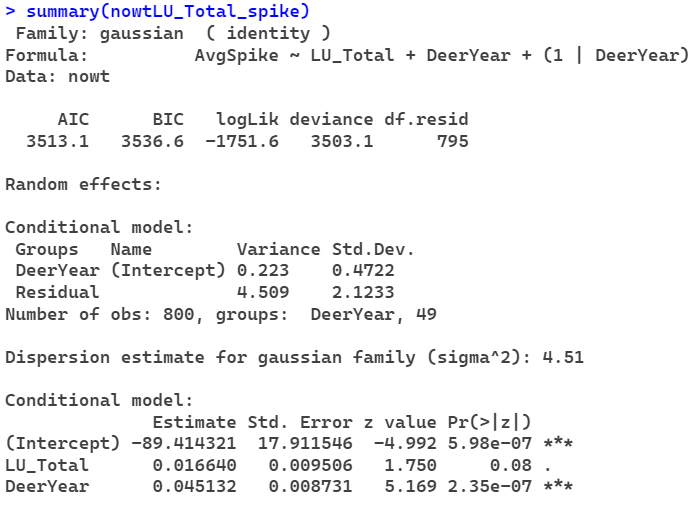
****

**Adults**

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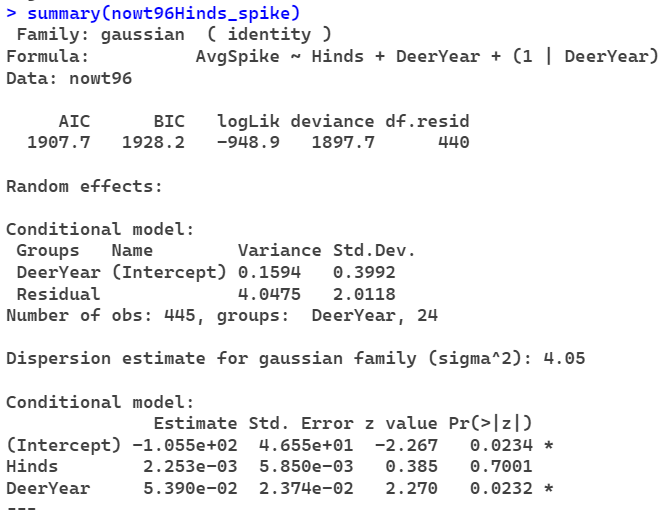
**Total**

****

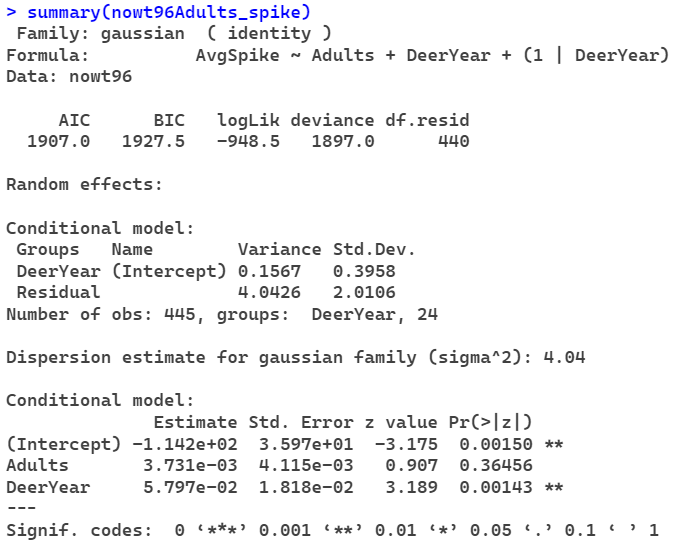
**Livestock units**

**1973-1996 with year as linear**

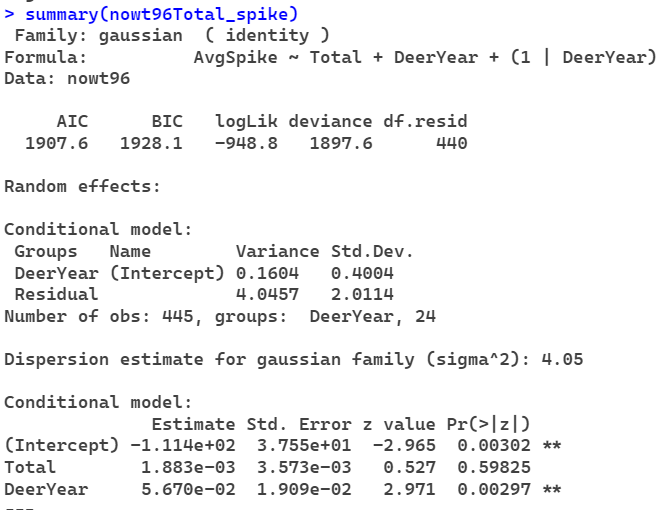
**Hinds**

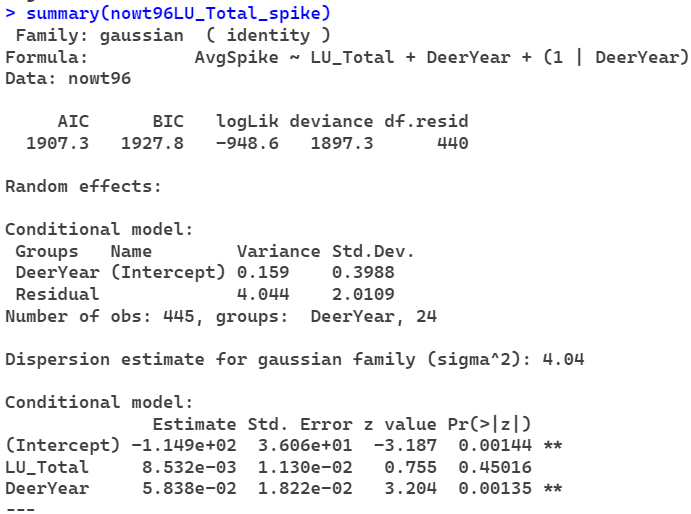
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**Adults**

****

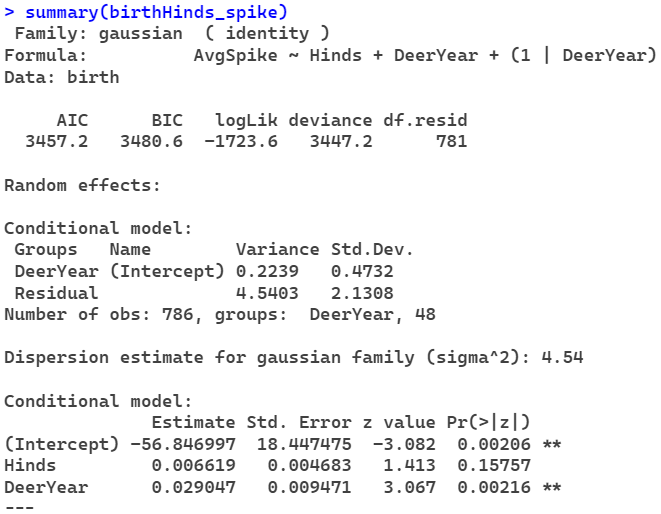
**Total**

****

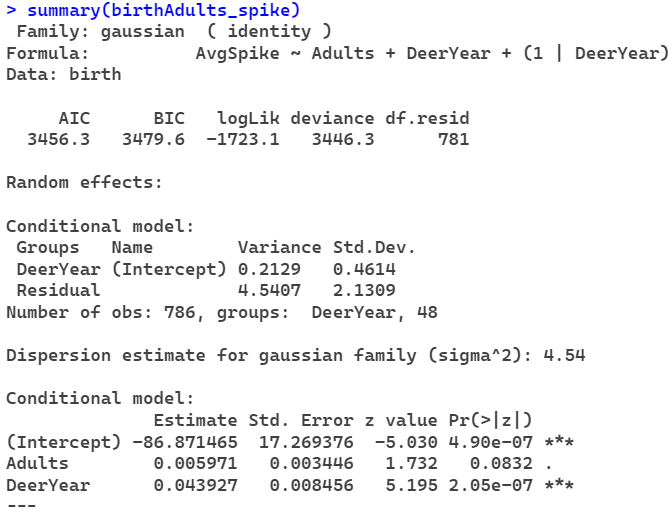
**Livestock Units**

**Using Birth Year 1973-2021**

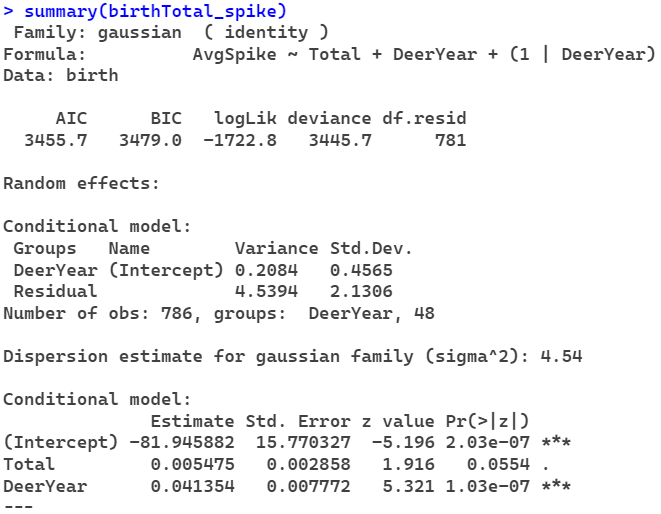
**Hinds**

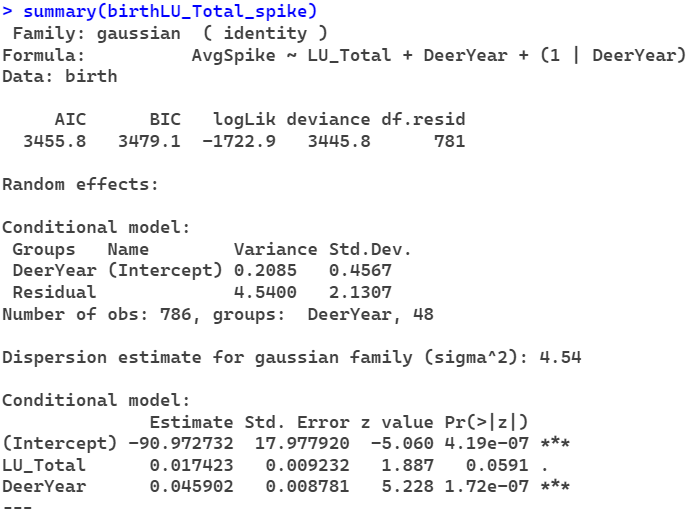
****

**Adults**

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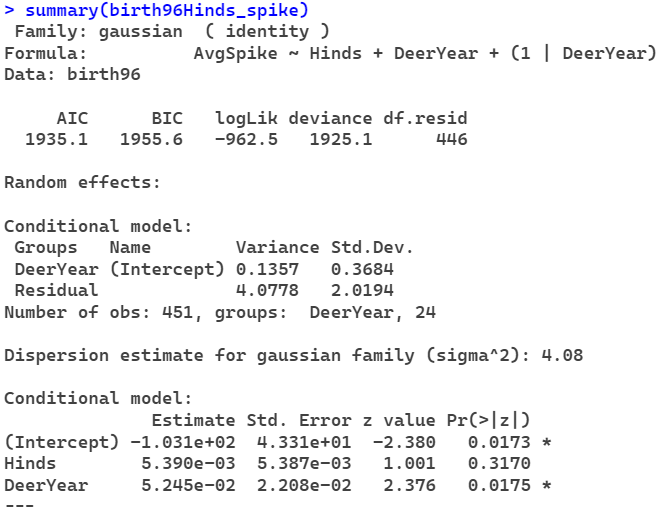
**Total**

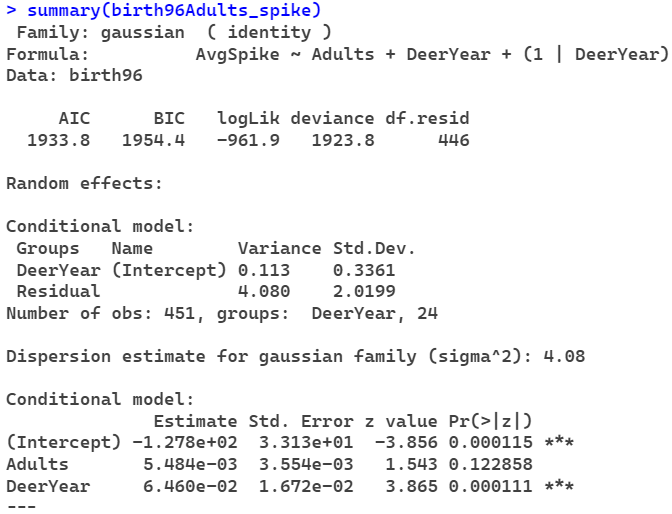
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**Livestock Units**

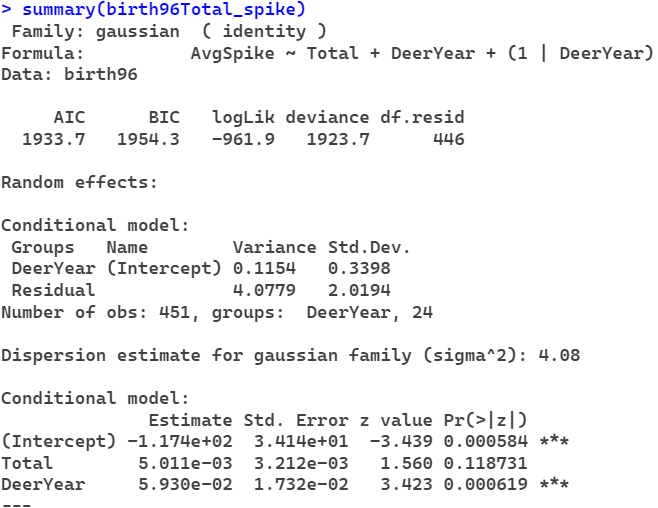
**Using Birth Year 1973-1996**

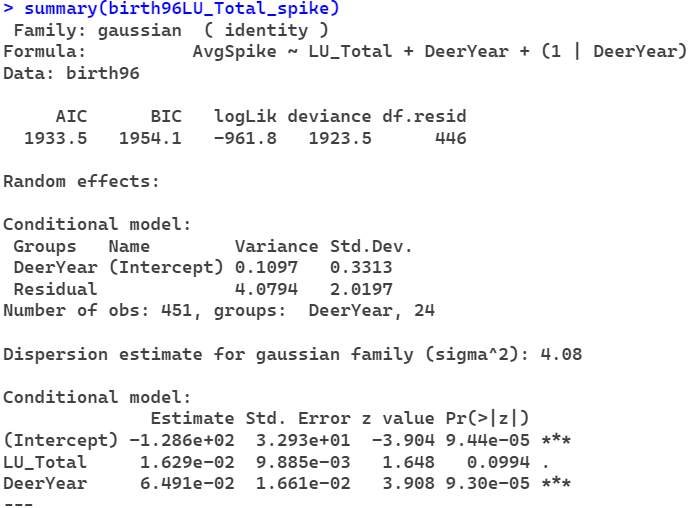
**Hinds**

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**Adults**

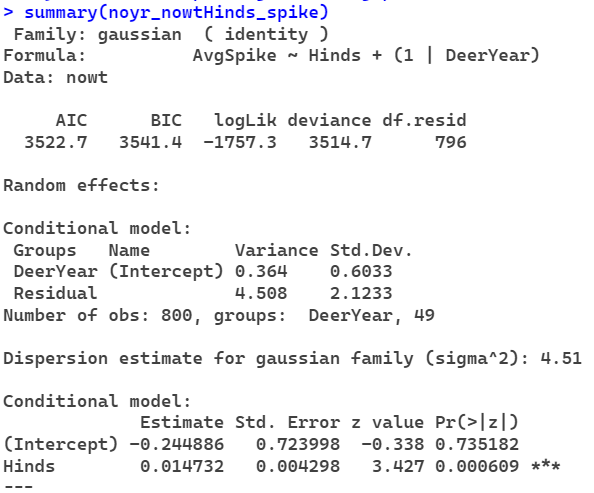
**Total**

****

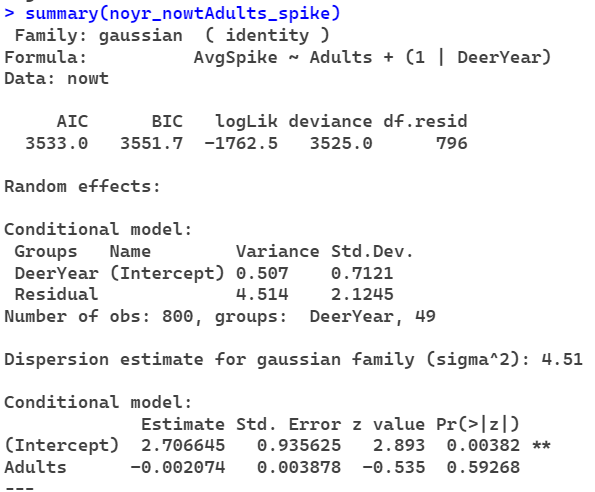
**Livestock Units**

**Observed Year without year as linear 1973-2021**

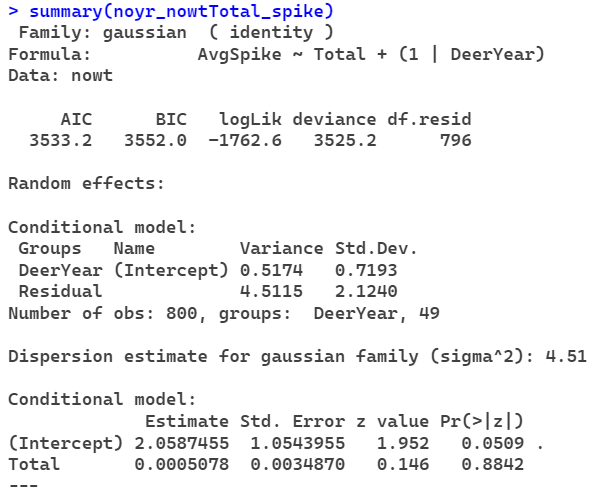
**Hinds**

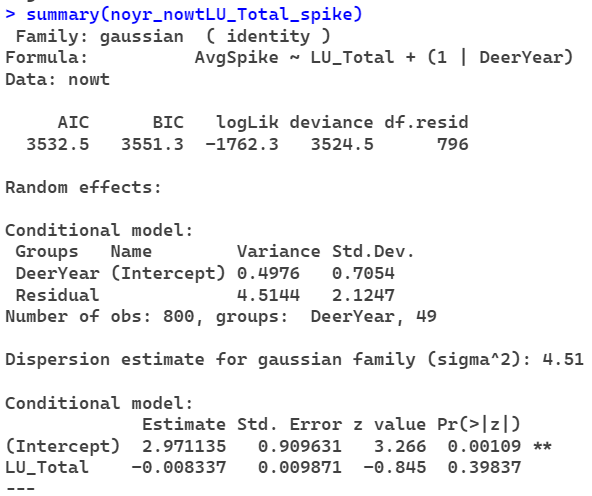
****

**Adults**

****

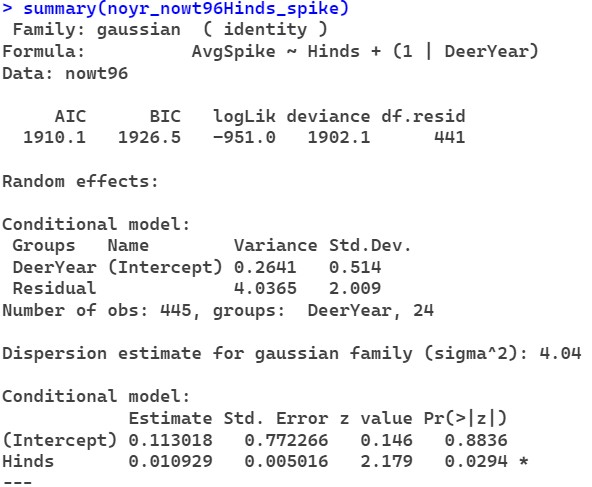
**Total**

****

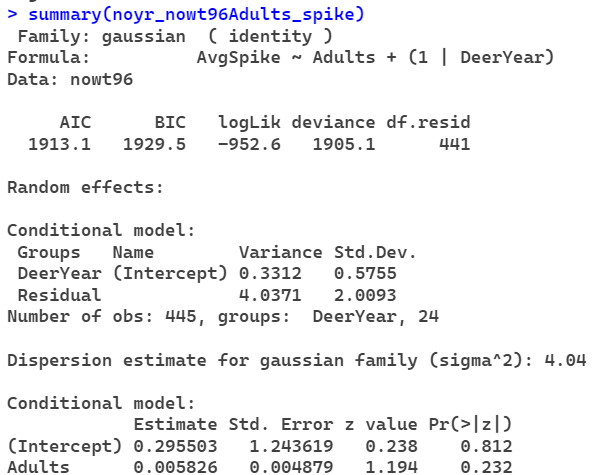
**Livestock Units**

**Observed Year without year as linear 1973-1996**

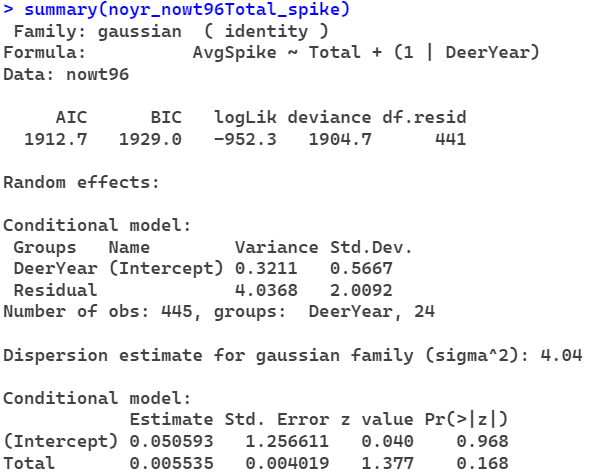
**Hinds**

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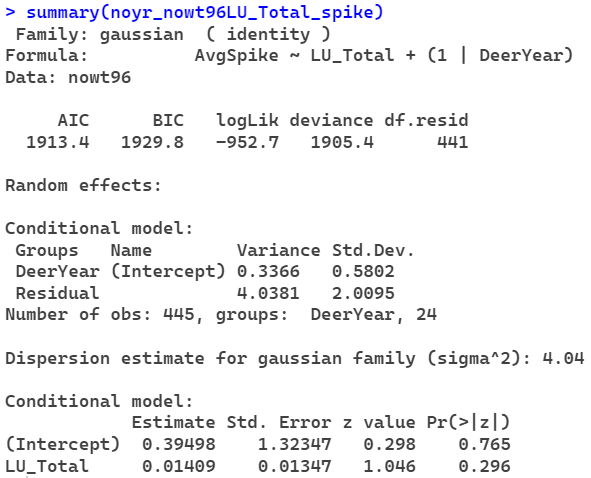
**Adults**

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**Total**

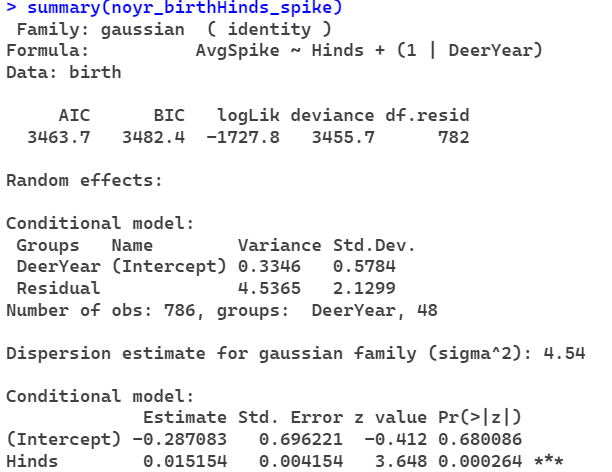
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**Livestock Units**

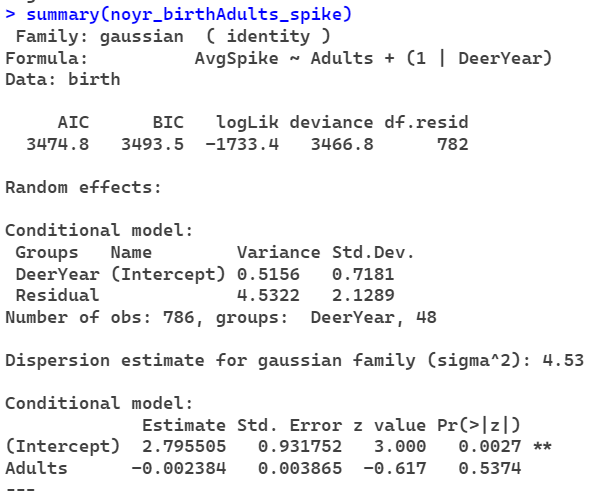
****

**Birth Year without year as linear 1973-2021**

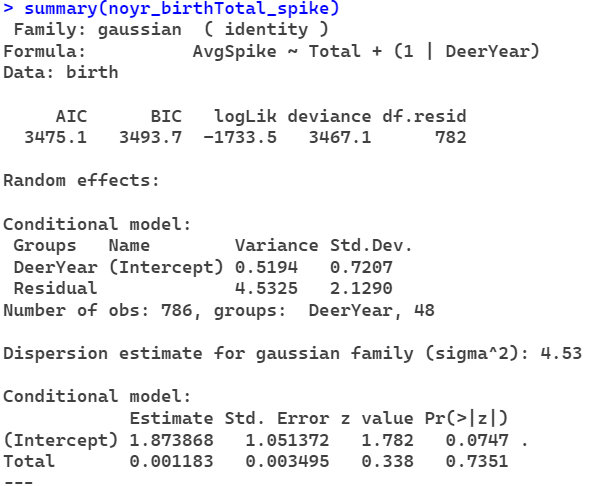
**Hinds**

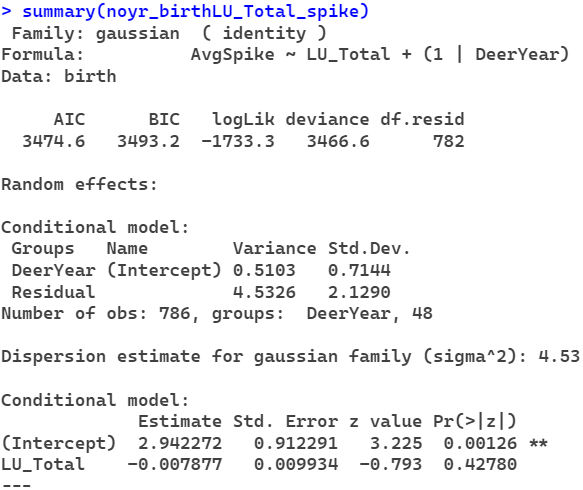
****

**Adults**

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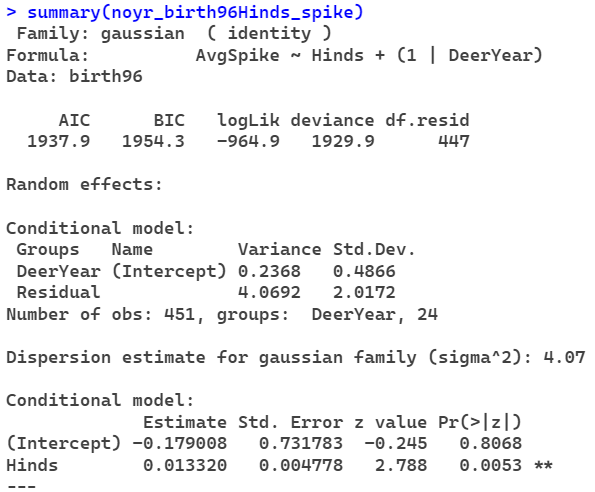
**Total**

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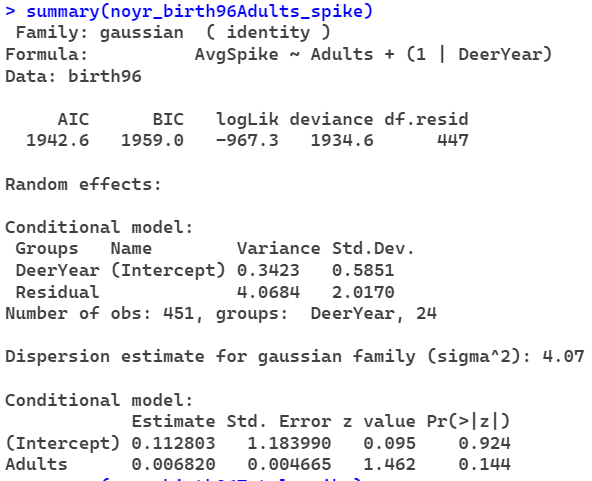
**Livestock Units**

**Birth Year without year as linear 1973-1996**

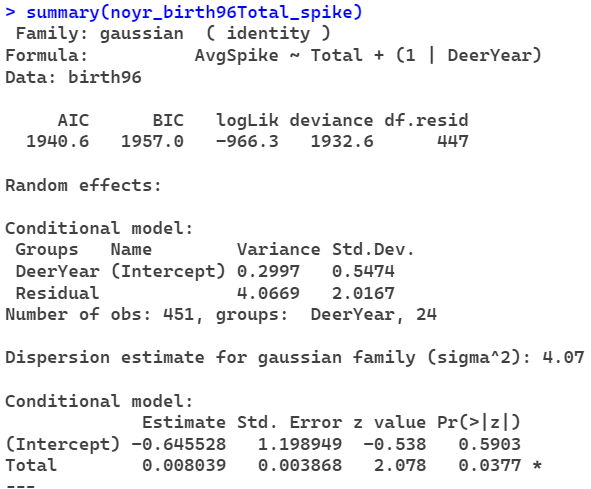
**Hinds**

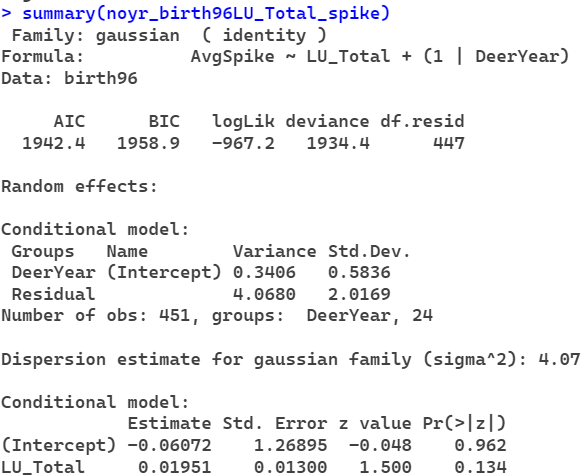
****

**Adults**

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**Total**

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**Livestock Units**