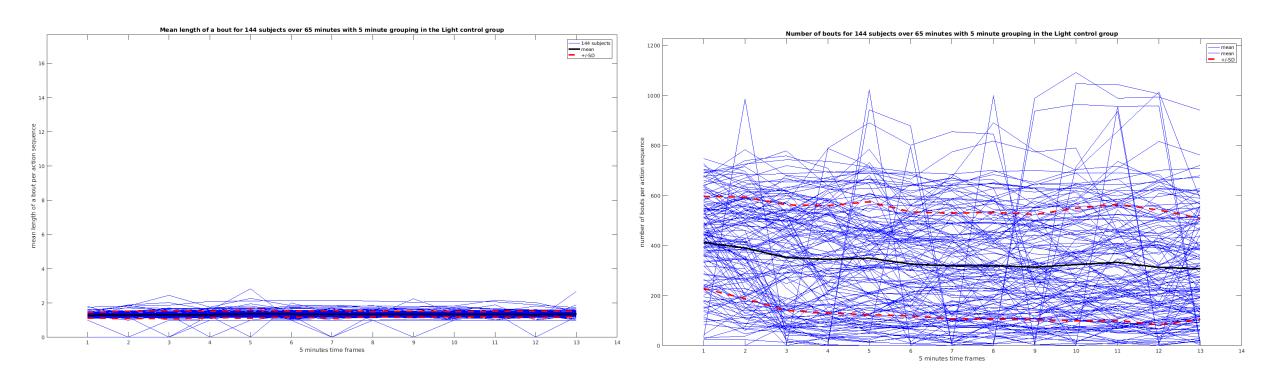
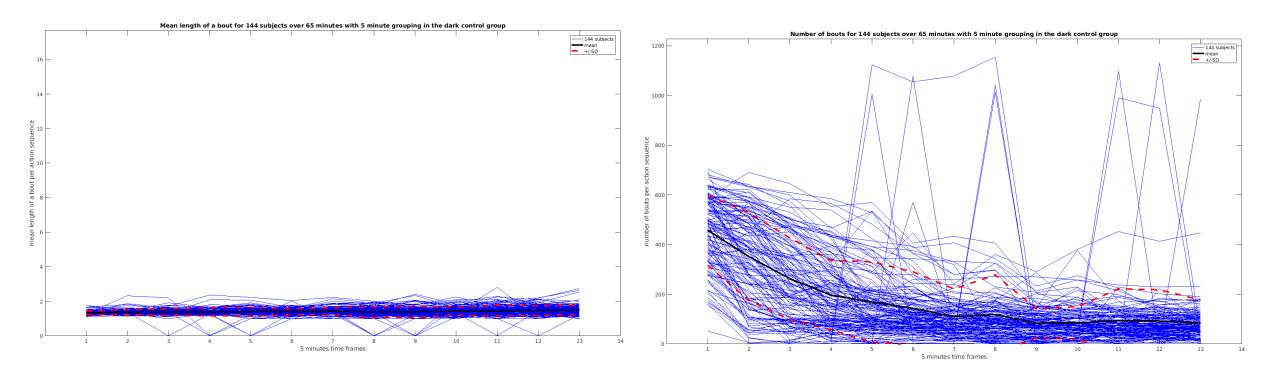
- Looking at the data from the control groups:
 - Action sequence length
 - Bout frequency and bout length per action sequence
 - Turn proportion
 - Simple motifs

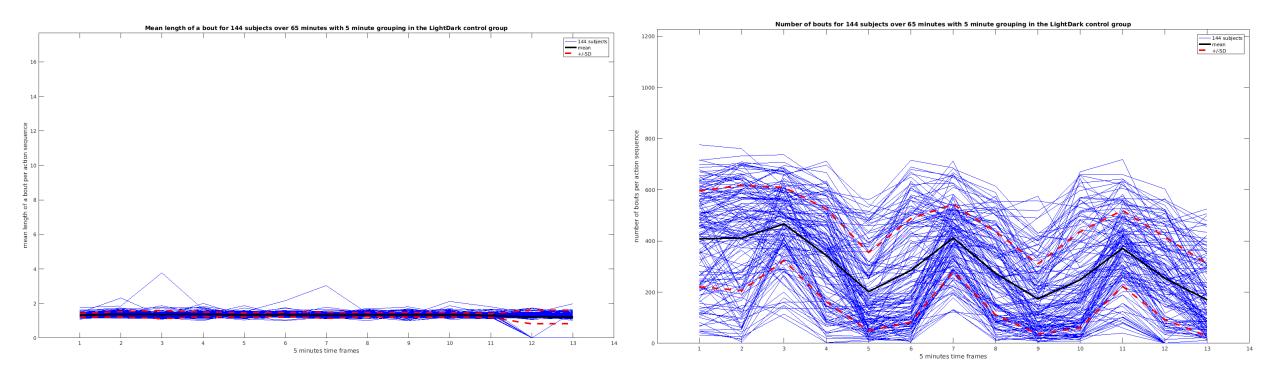
- Action sequence length per 5 minute time frame is influenced by the bout lengths and frequency.
- These characteristics have already been explored:
 - **Light** will have constant mean bout length, SD of bout length and bout frequency:



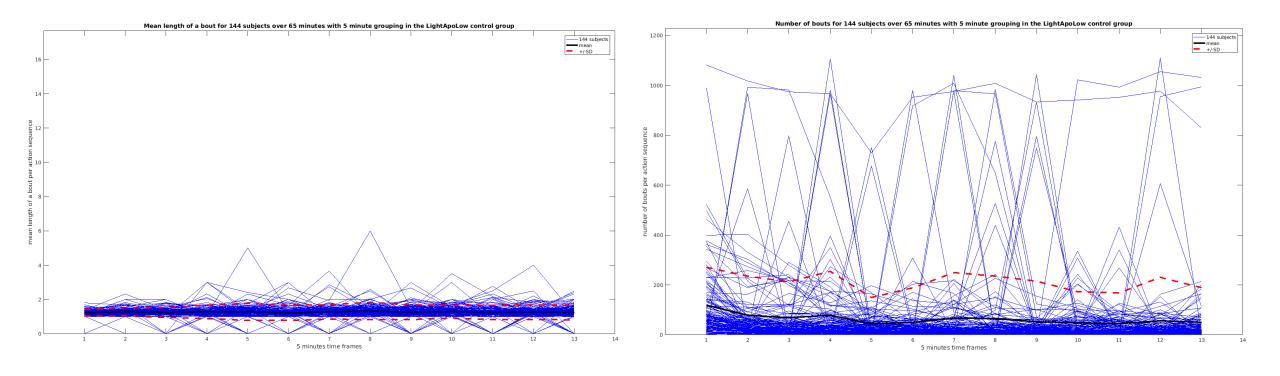
• In **Dark** the number of bouts will decrease, while the mean length of bout will stay the same, but the variation between the subjects increases slightly in the last time frames:



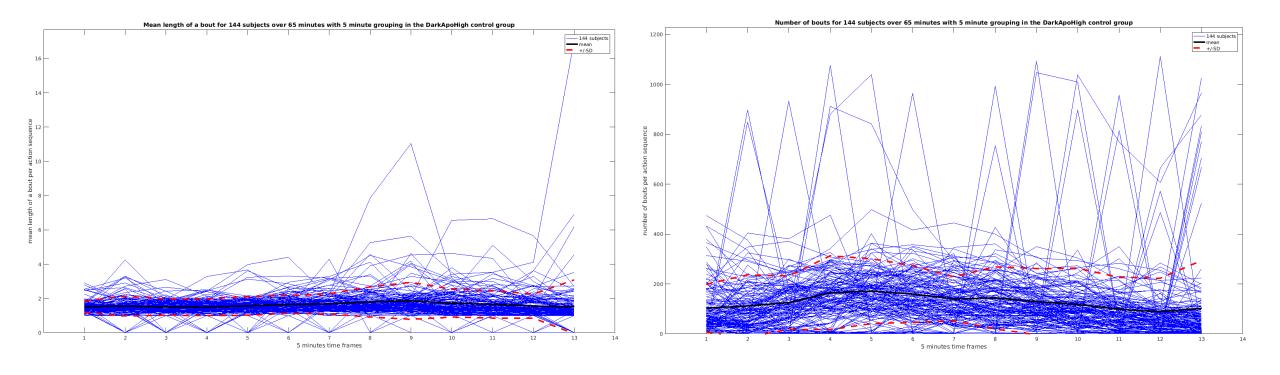
• **LightDark** shows the alternations in the number of bouts, while mean length of bout and SD stay the same:



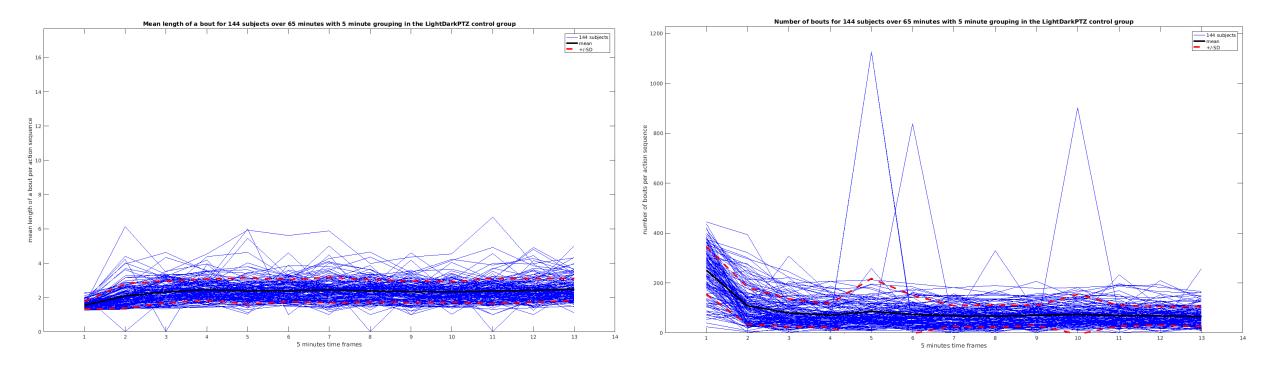
• (Dark)ApoLow will have immediately decreased number of bouts, that stay low all through the experiment. Mean length of bout seems to be the same with slightly increased SD between the subjects:



 (Dark)ApoHigh has an overall decreased number of bouts, which show the U shape response. Mean length of bout has increased variation between the subjects:

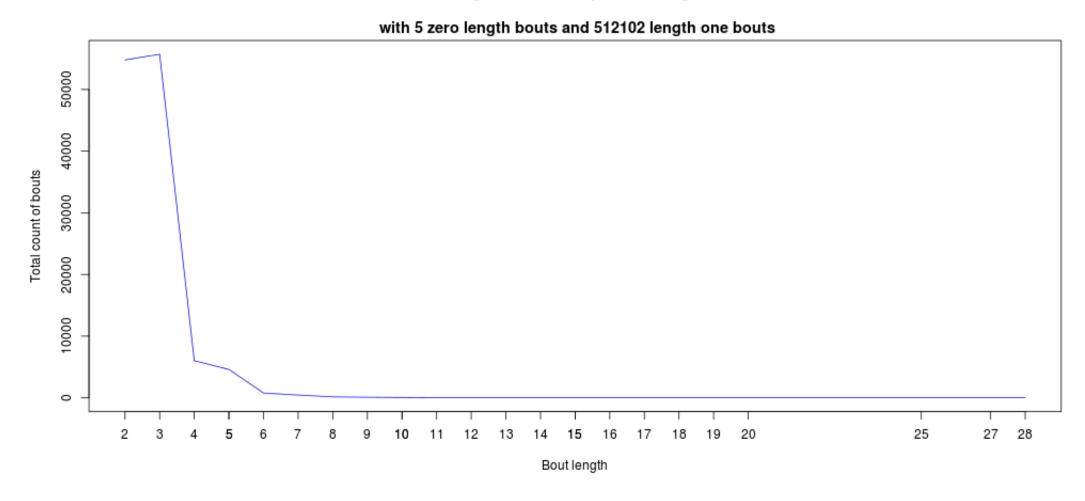


• In (Dark)PTZ the number of bouts decreases substantialy. Mean length of bout increases and so does the variation between the subjects:



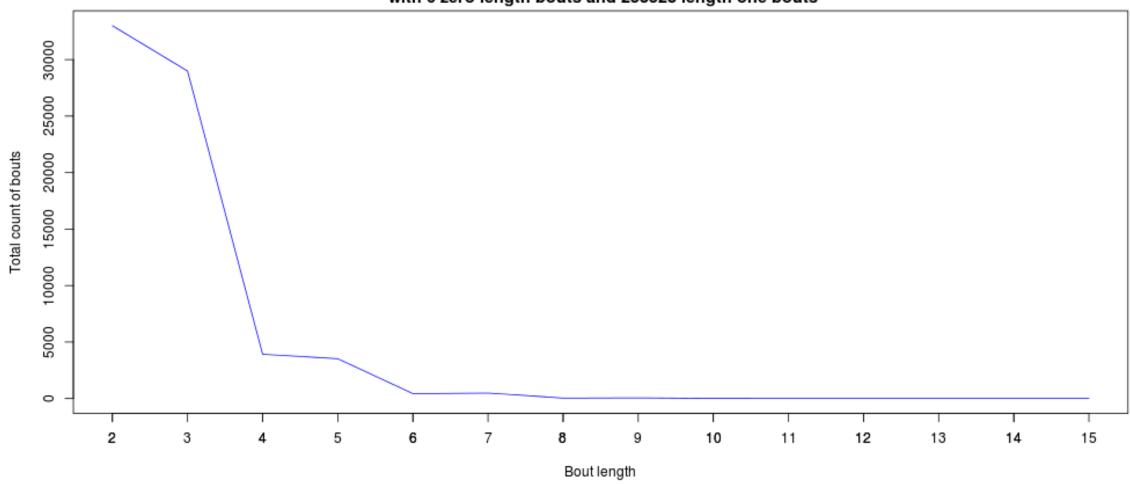
- With averaging over the action sequence a lot of information is lost, since the SD of bout length is always relatively high.
- The number of short or long bouts differs between the controls:
 - Light:

In Light, bout count per bout length



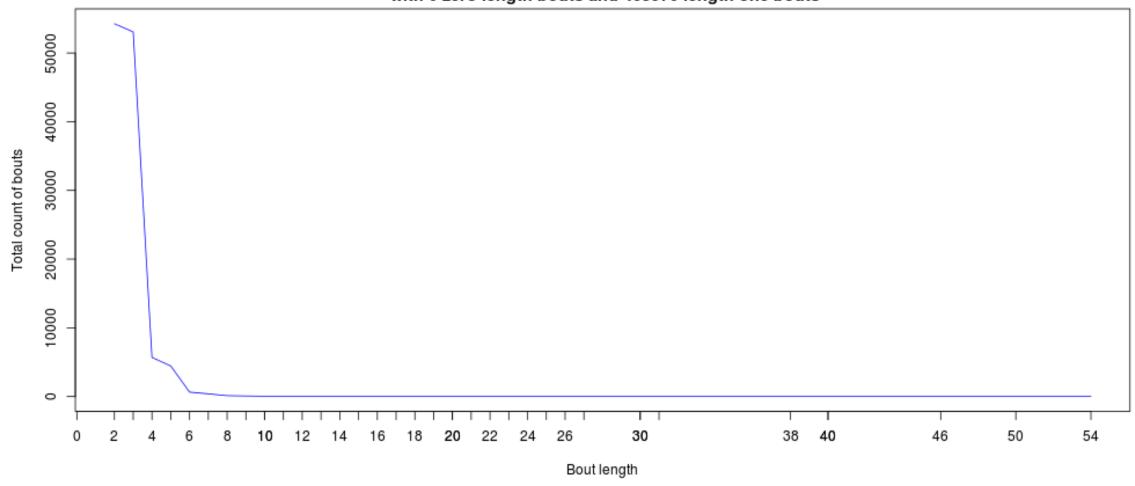
In Dark, bout count per bout length





In LightDark, bout count per bout length

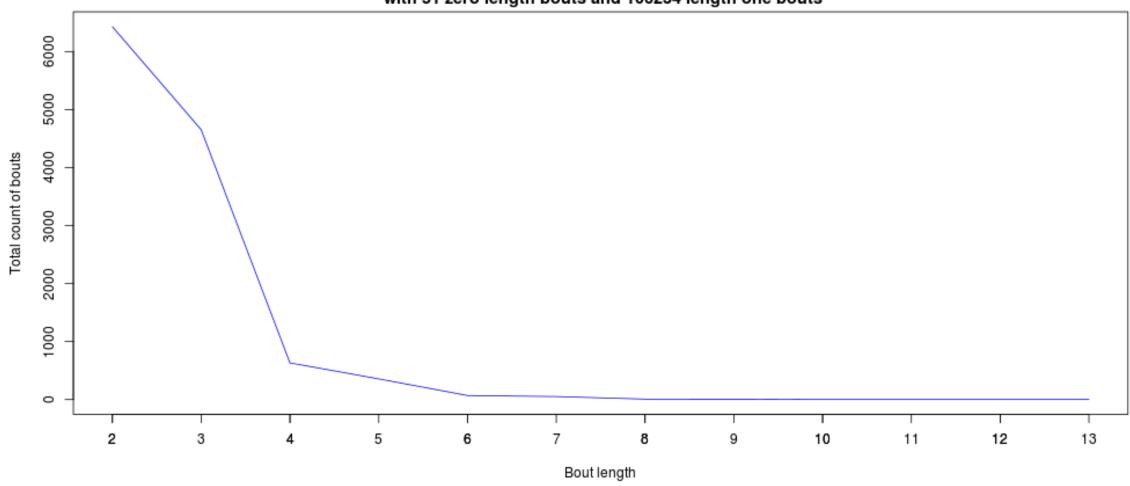
with 0 zero length bouts and 465970 length one bouts



• (Dark)ApoLow:

In DarkApoLow, bout count per bout length

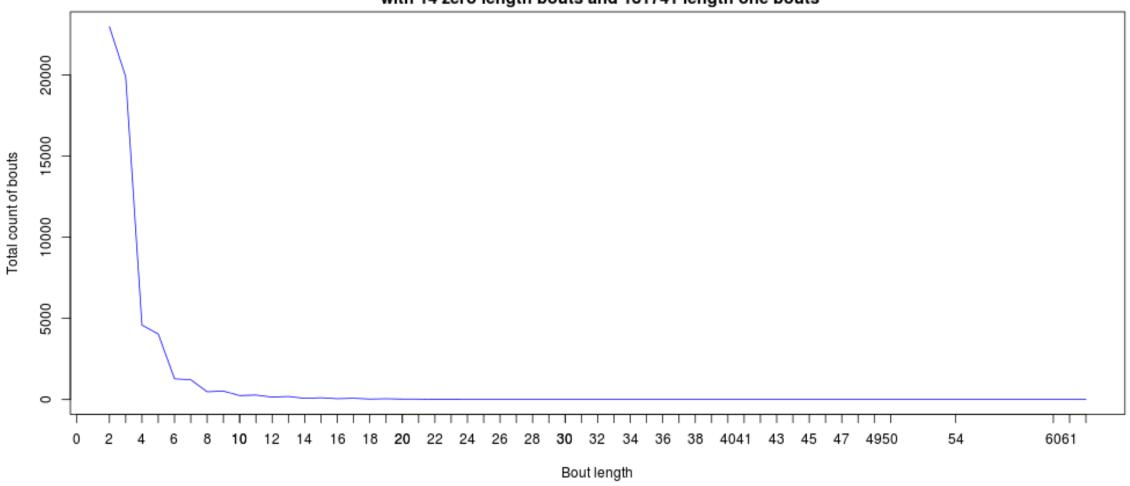




• (Dark)ApoHigh:

In DarkApoHigh, bout count per bout length

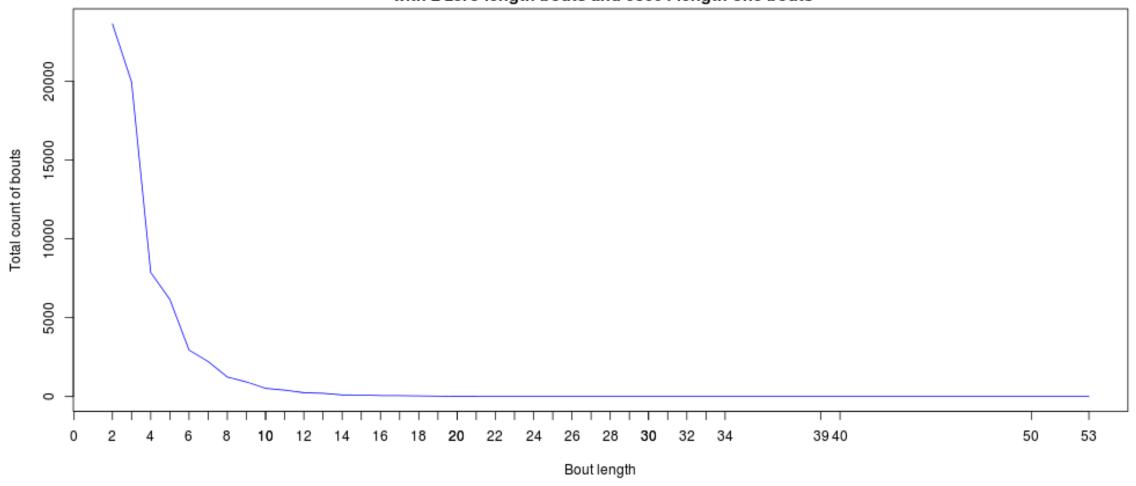
with 14 zero length bouts and 181741 length one bouts



• (Dark)PTZ:

In DarkPTZ, bout count per bout length

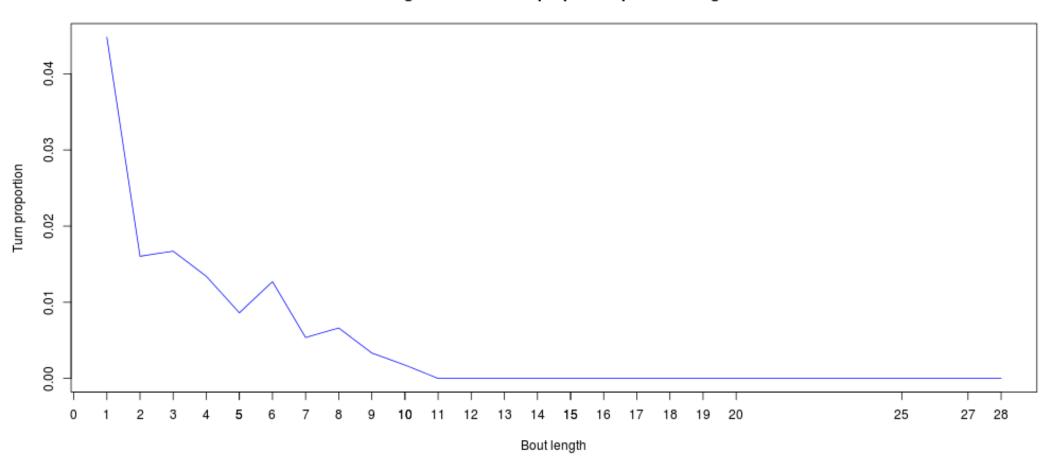
with 2 zero length bouts and 98604 length one bouts



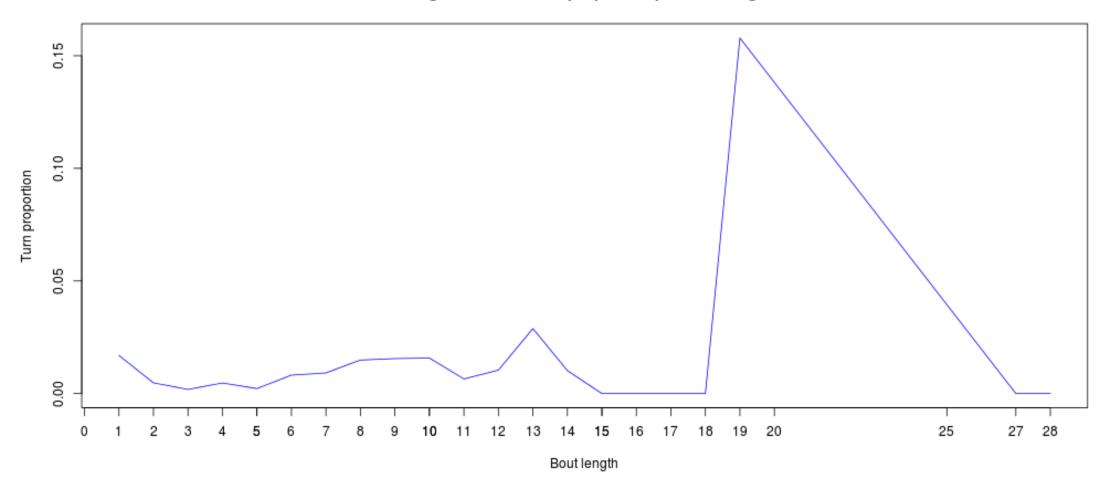
Turn proportion per action sequence is influenced by bout length and frequency.

Light:

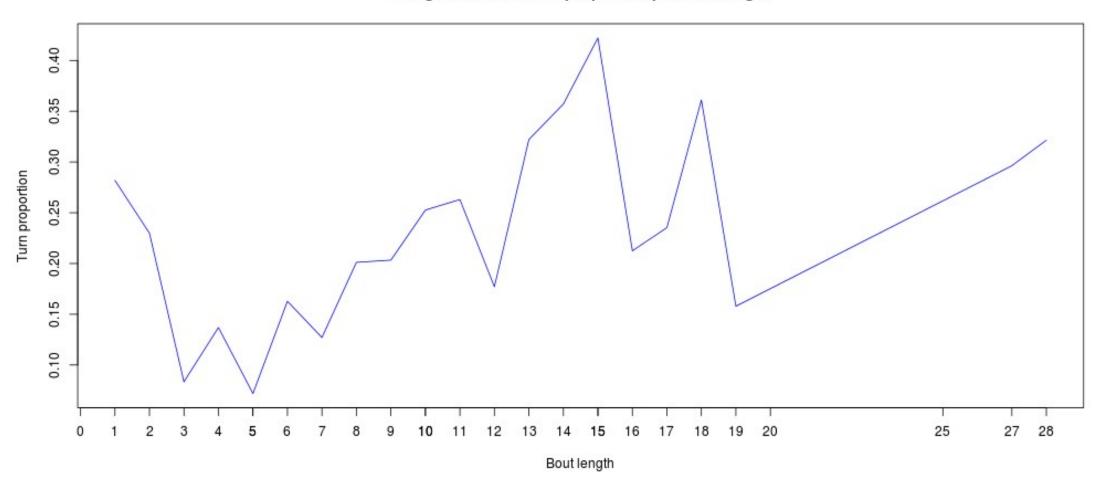
In Light Mean CBends proportion per bout length



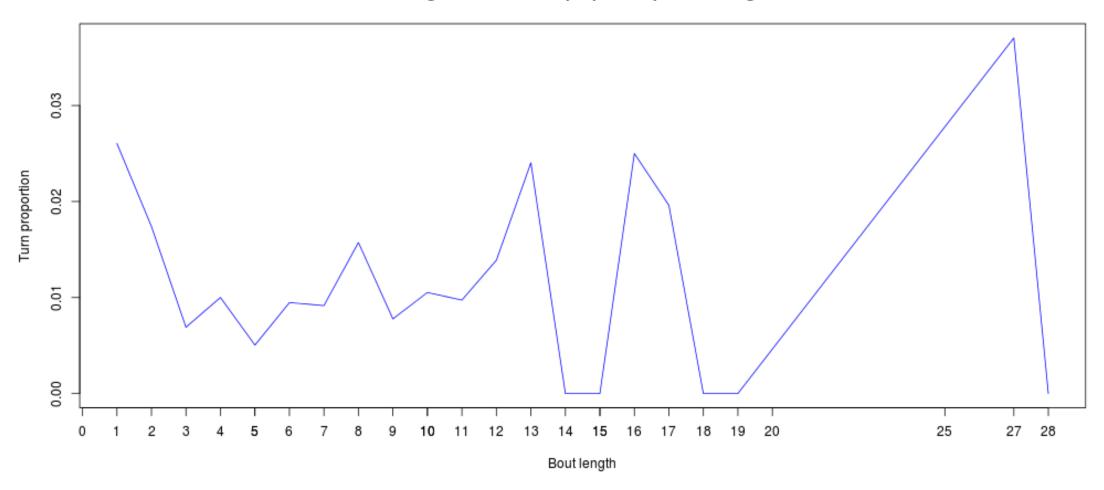
In Light Mean EBends proportion per bout length



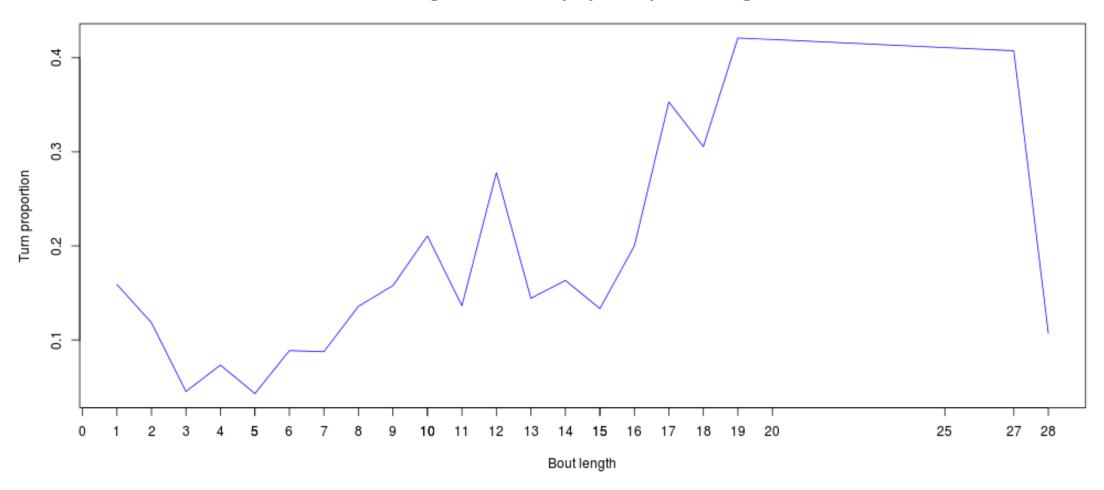
In Light Mean GBends proportion per bout length



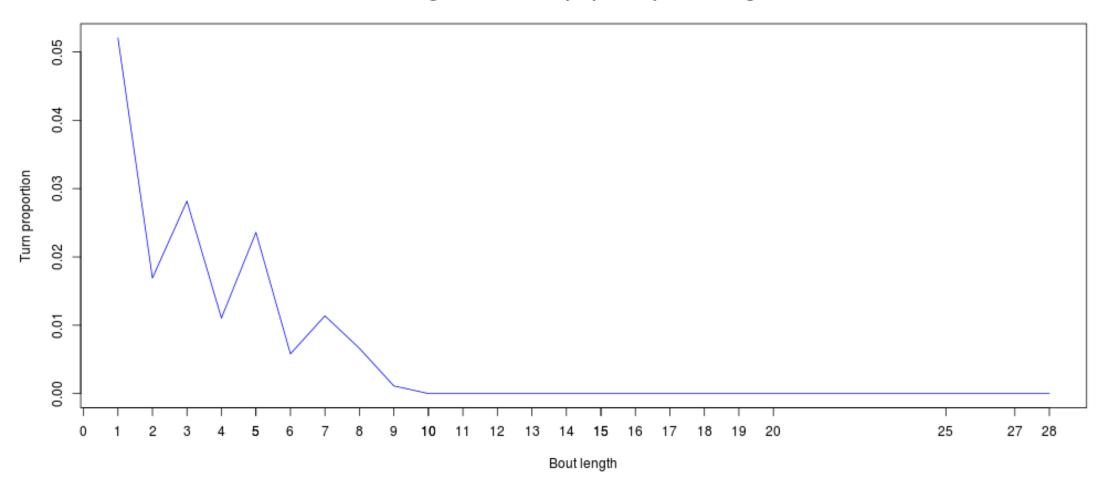
In Light Mean HBends proportion per bout length



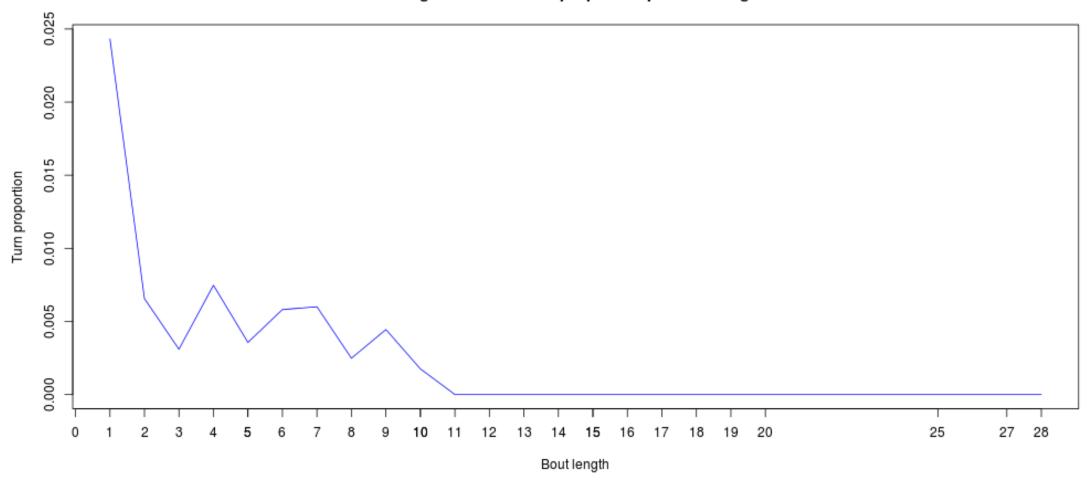
In Light Mean IBends proportion per bout length



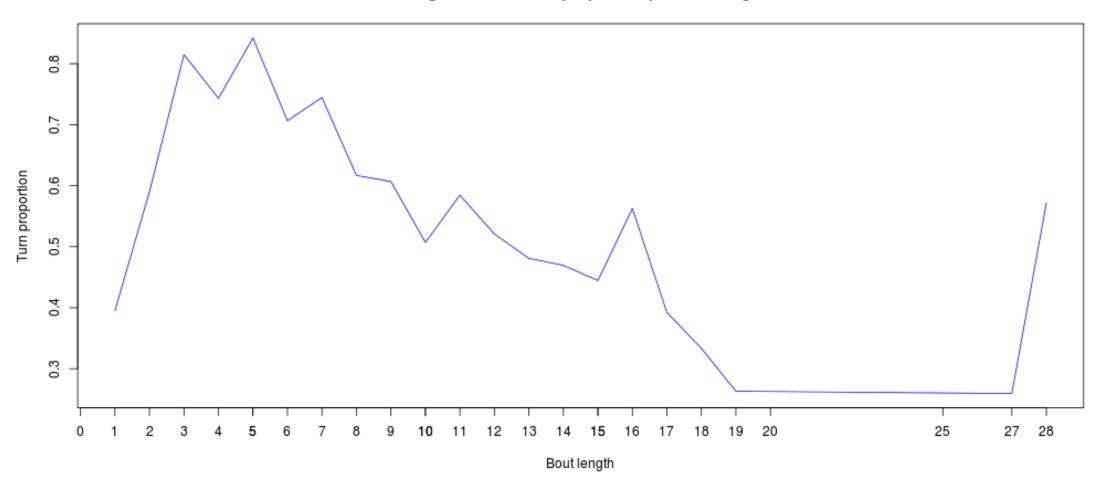
In Light Mean JBends proportion per bout length



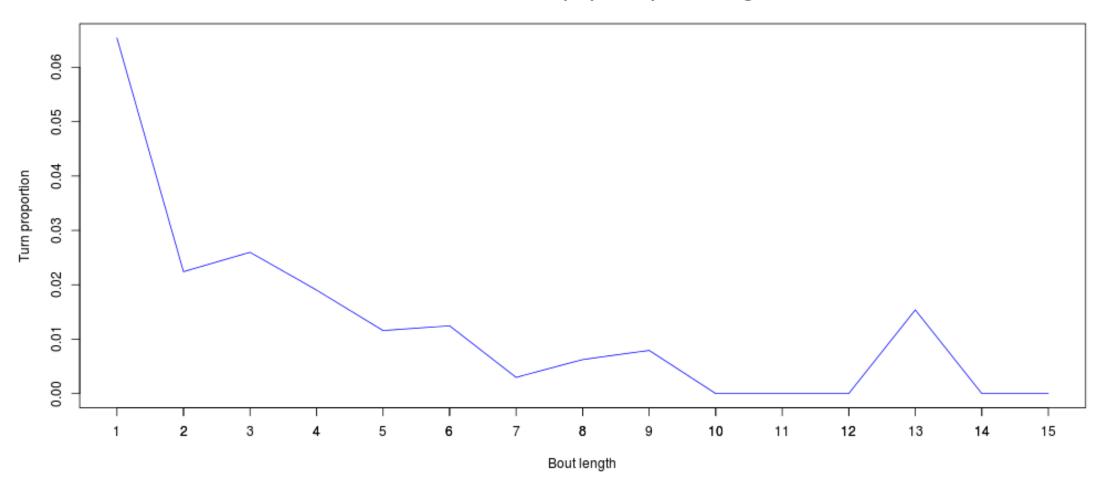
In Light Mean OBends proportion per bout length



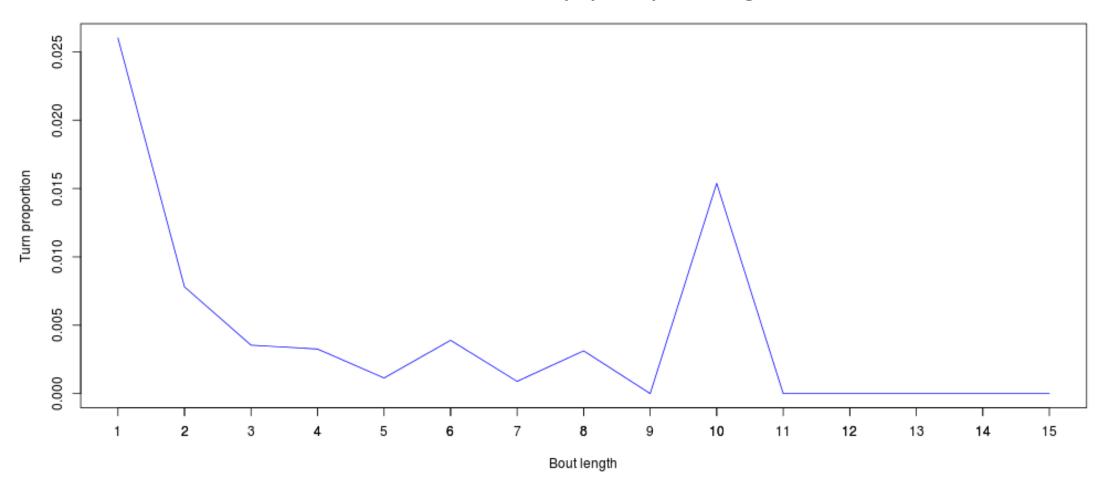
In Light Mean Scoots proportion per bout length



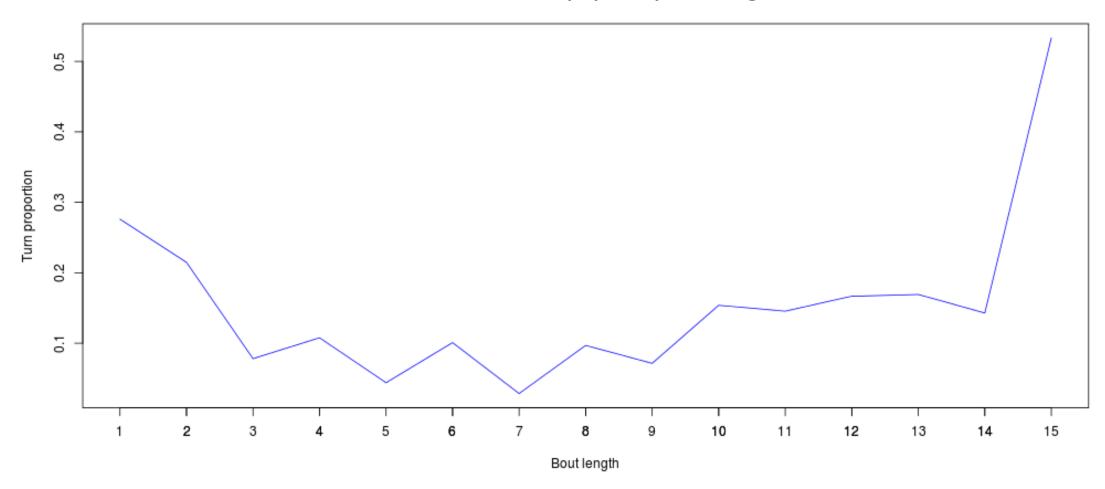
In Dark Mean CBends proportion per bout length



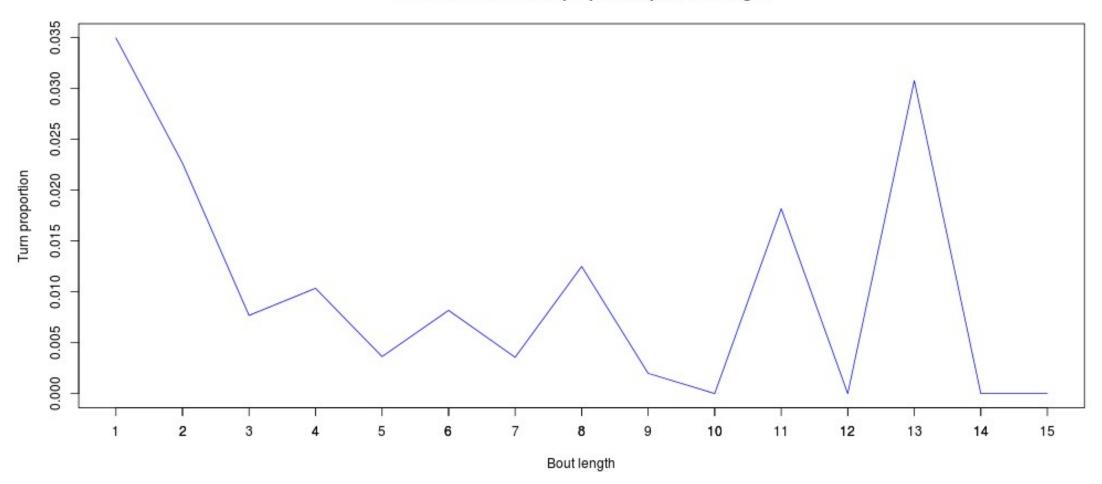
In Dark Mean EBends proportion per bout length



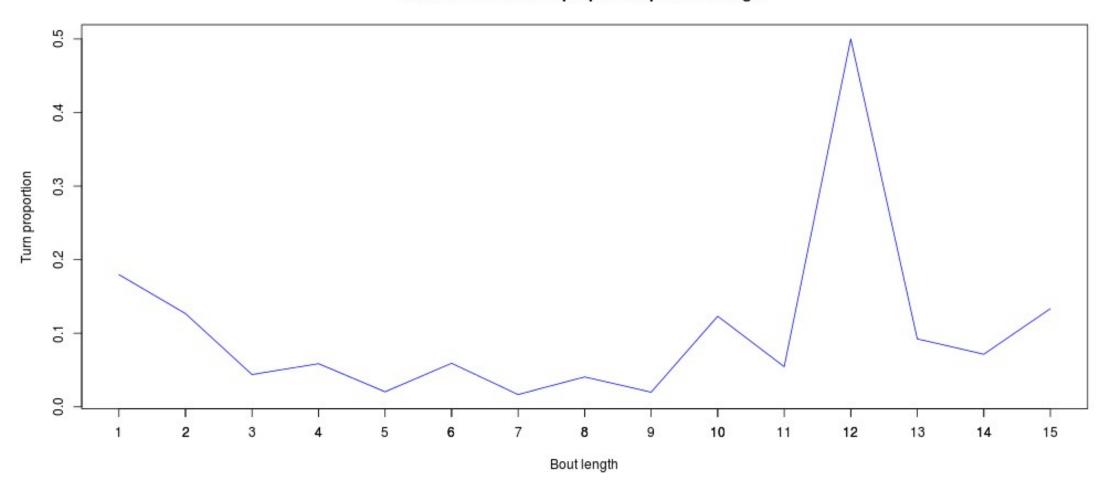
In Dark Mean GBends proportion per bout length



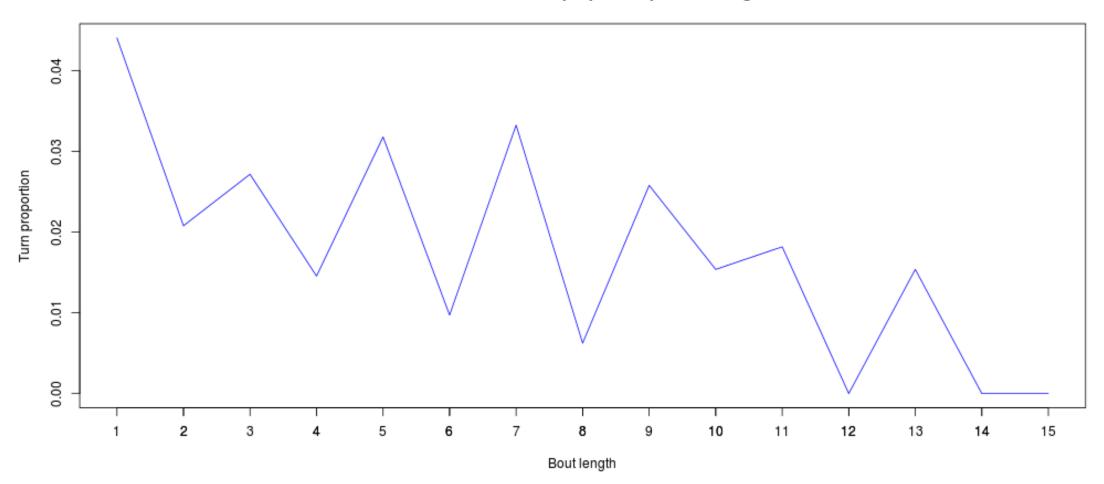
In Dark Mean HBends proportion per bout length



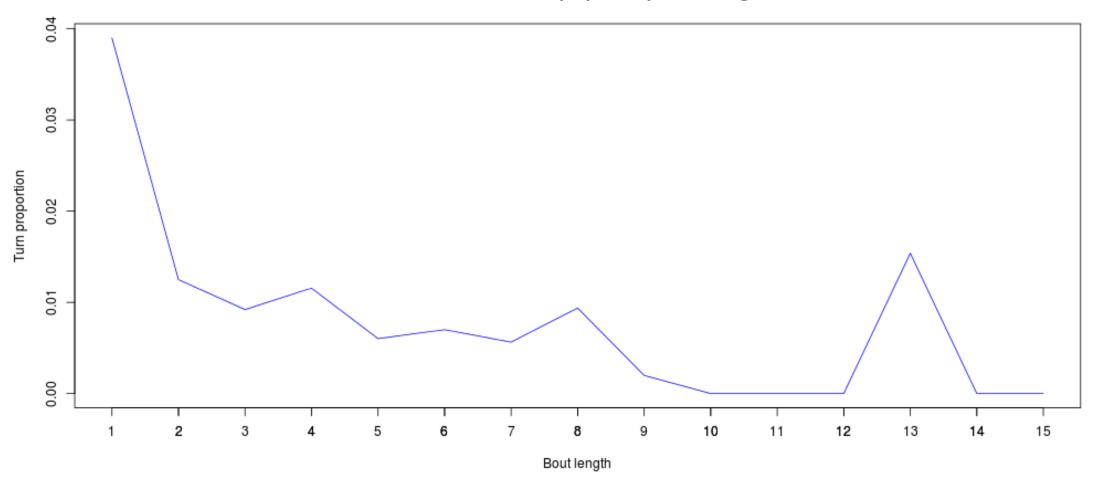
In Dark Mean IBends proportion per bout length



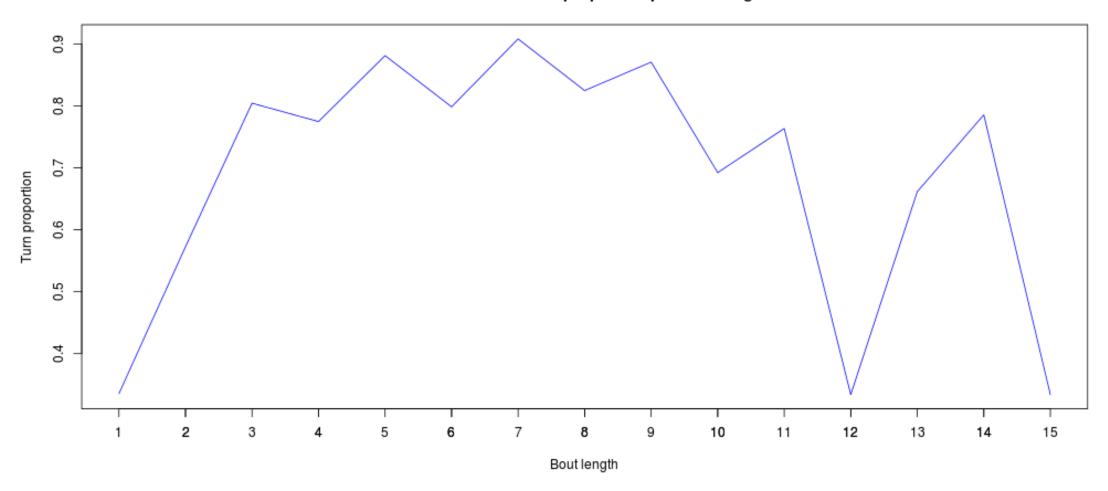
In Dark Mean JBends proportion per bout length



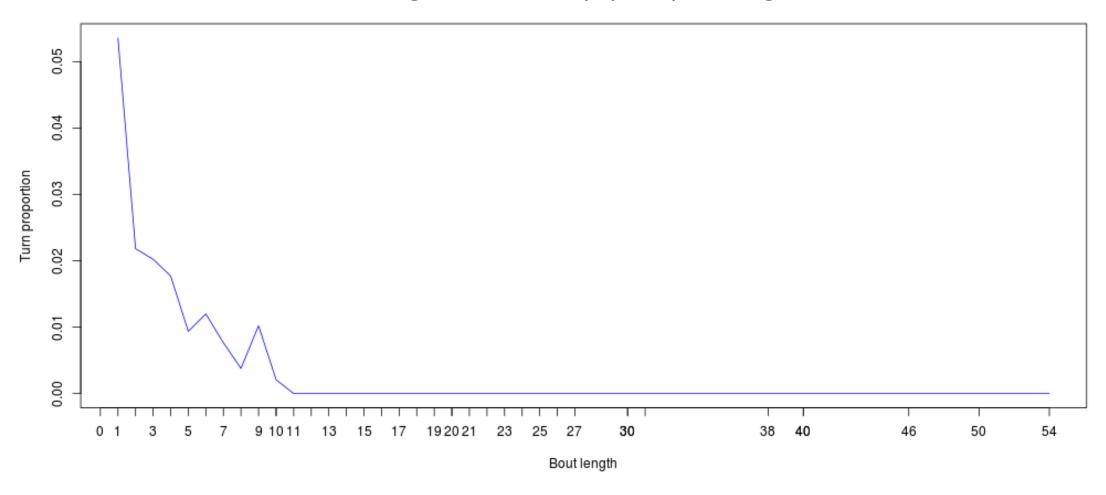
In Dark Mean OBends proportion per bout length



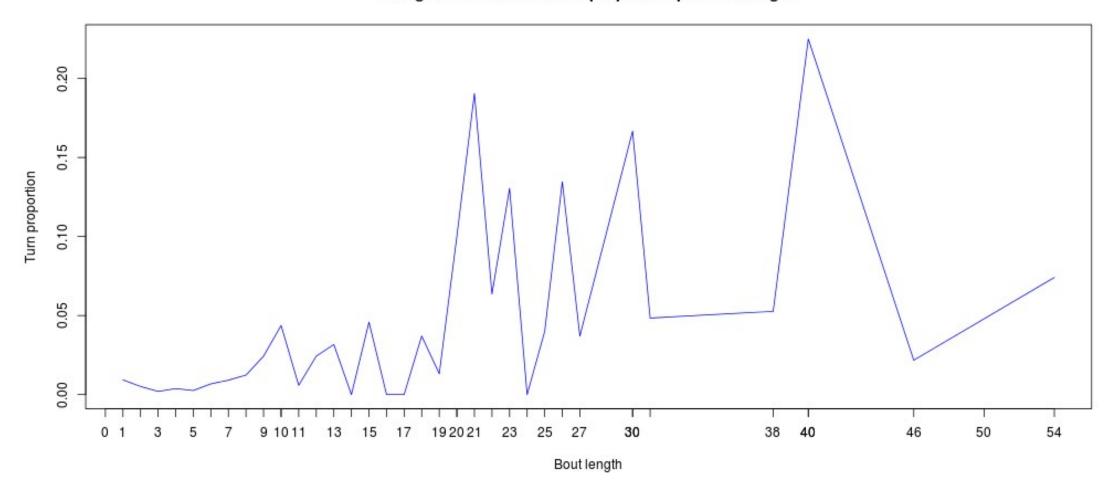
In Dark Mean Scoots proportion per bout length



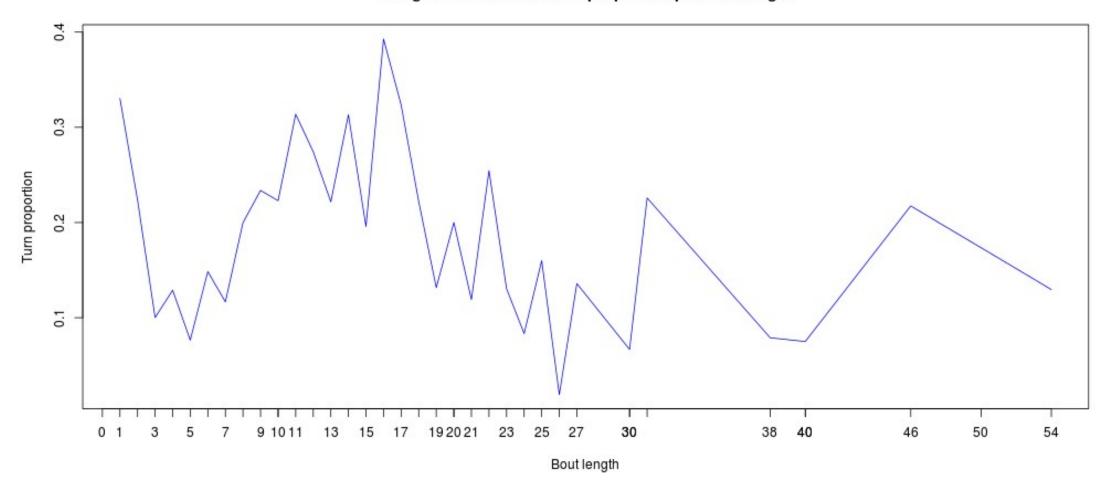
In LightDark Mean CBends proportion per bout length



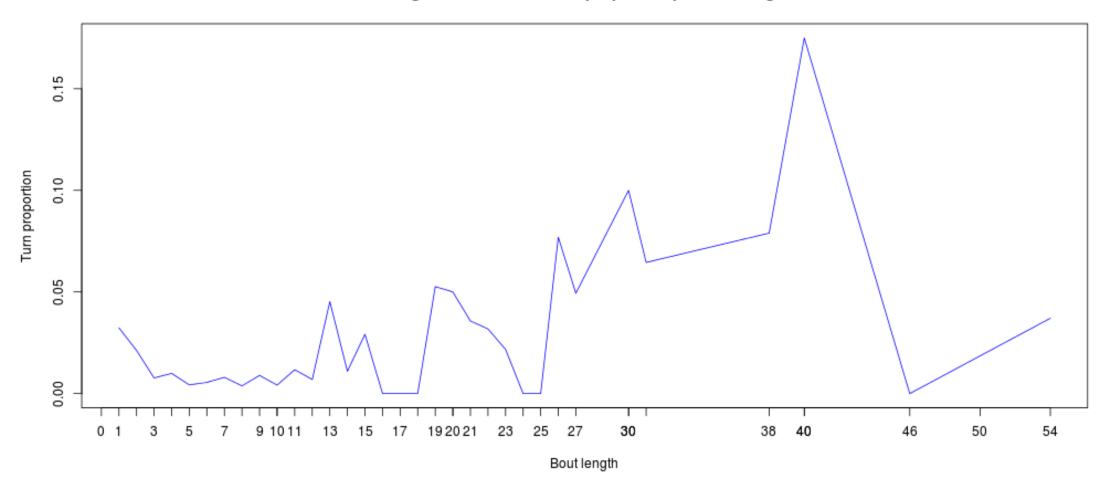
In LightDark Mean EBends proportion per bout length



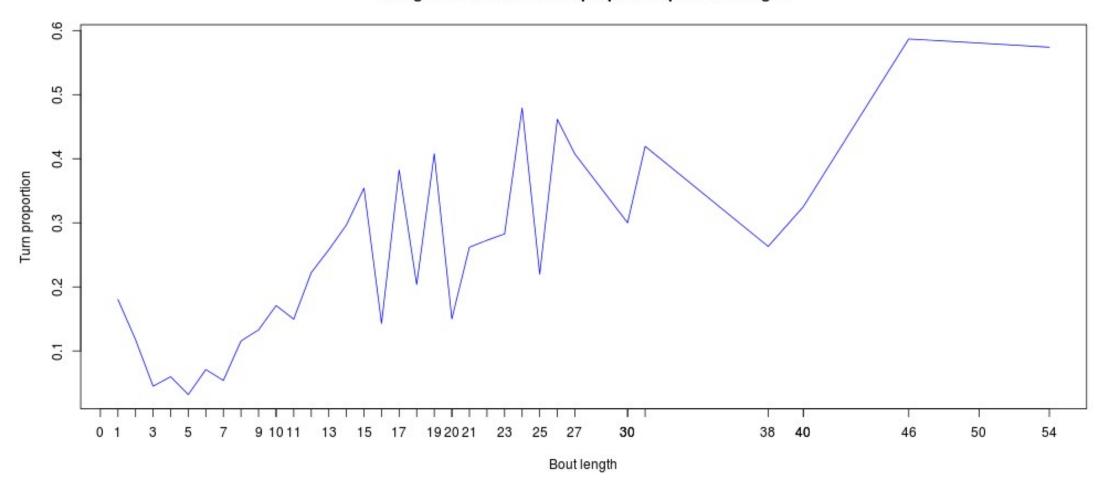
In LightDark Mean GBends proportion per bout length



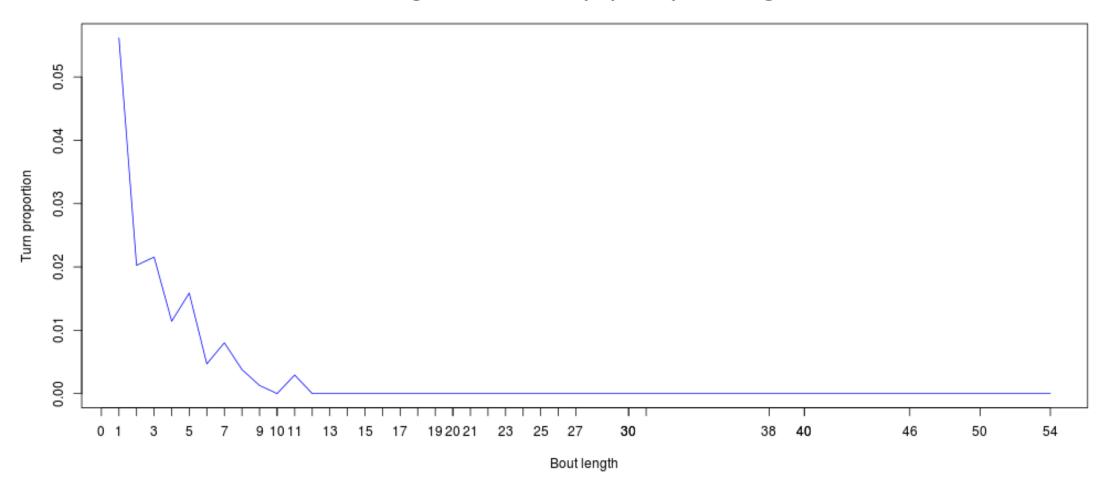
In LightDark Mean HBends proportion per bout length



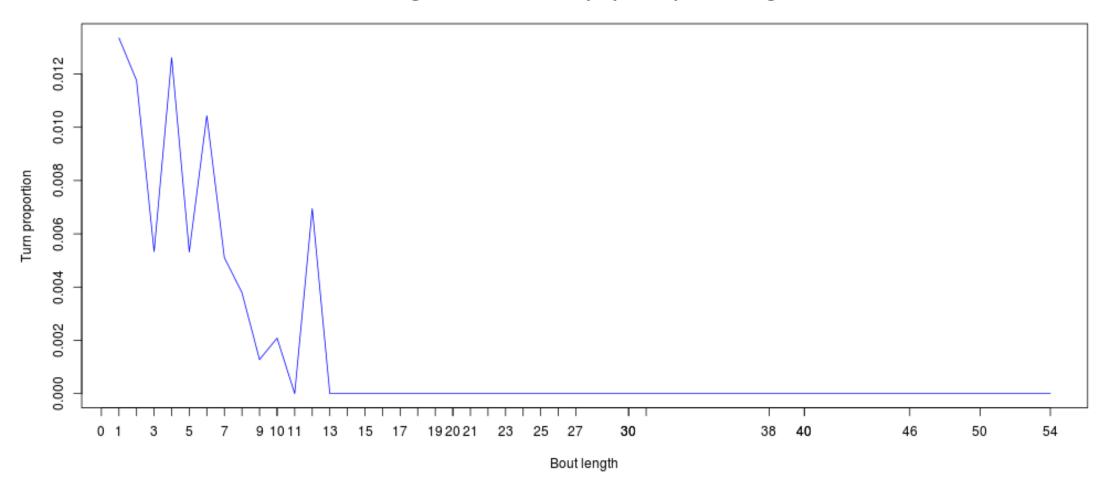
In LightDark Mean IBends proportion per bout length



In LightDark Mean JBends proportion per bout length

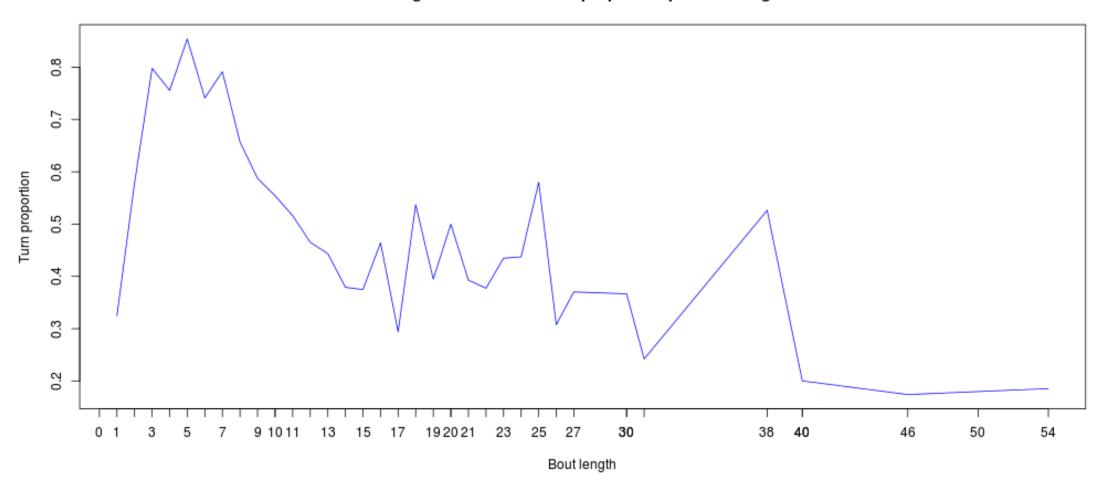


In LightDark Mean OBends proportion per bout length



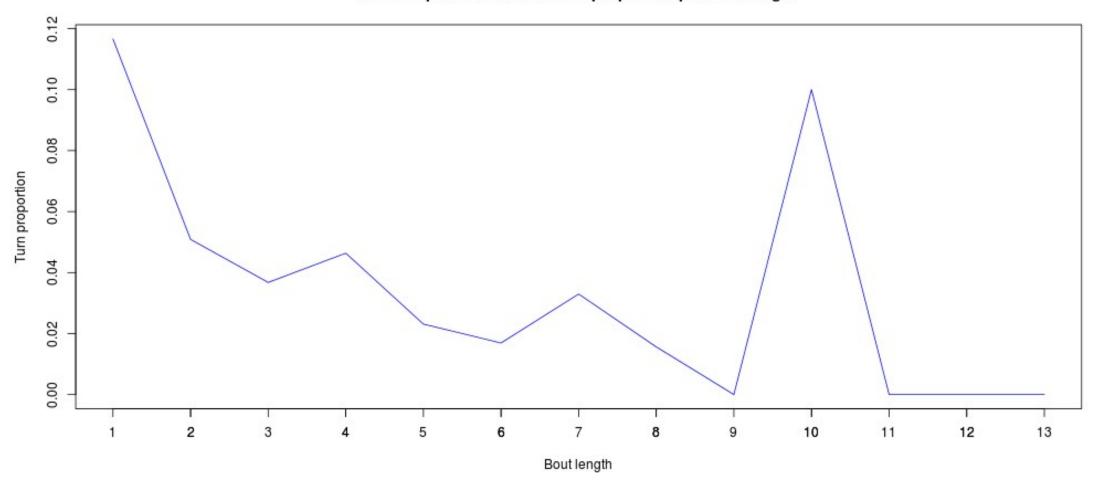
LightDark:

In LightDark Mean Scoots proportion per bout length



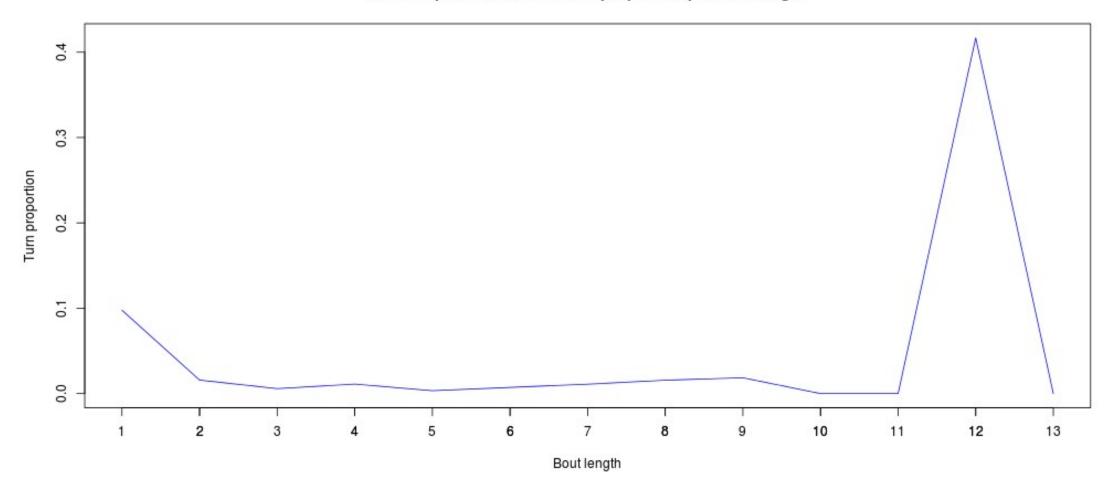
• (Dark)ApoLow:

In DarkApoLow Mean CBends proportion per bout length



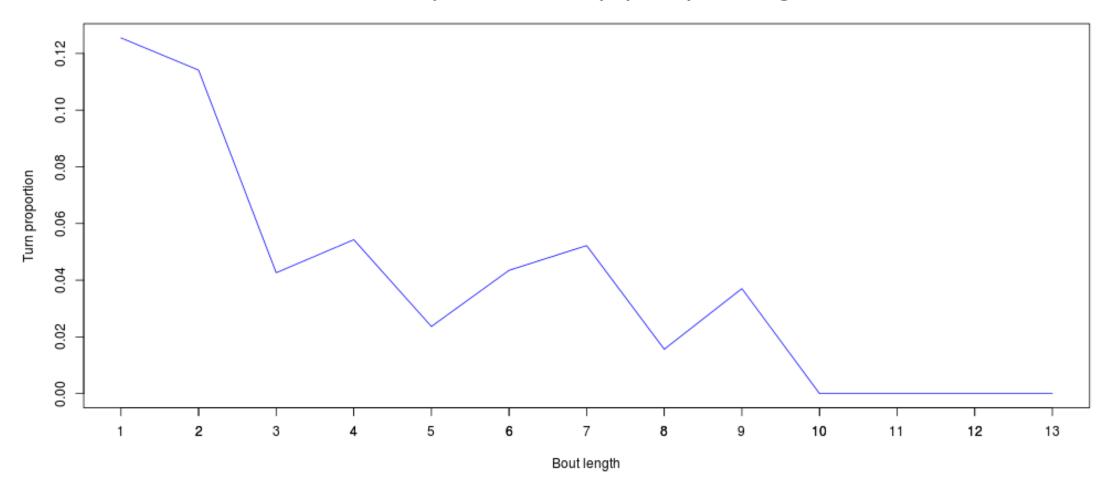
(Dark)ApoLow:

In DarkApoLow Mean EBends proportion per bout length



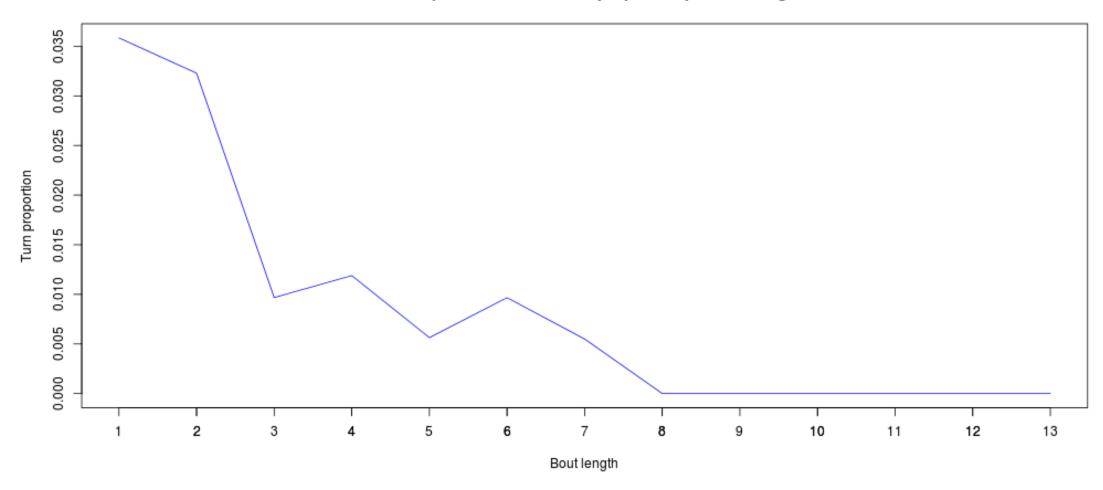
(Dark)ApoLow:

In DarkApoLow Mean GBends proportion per bout length



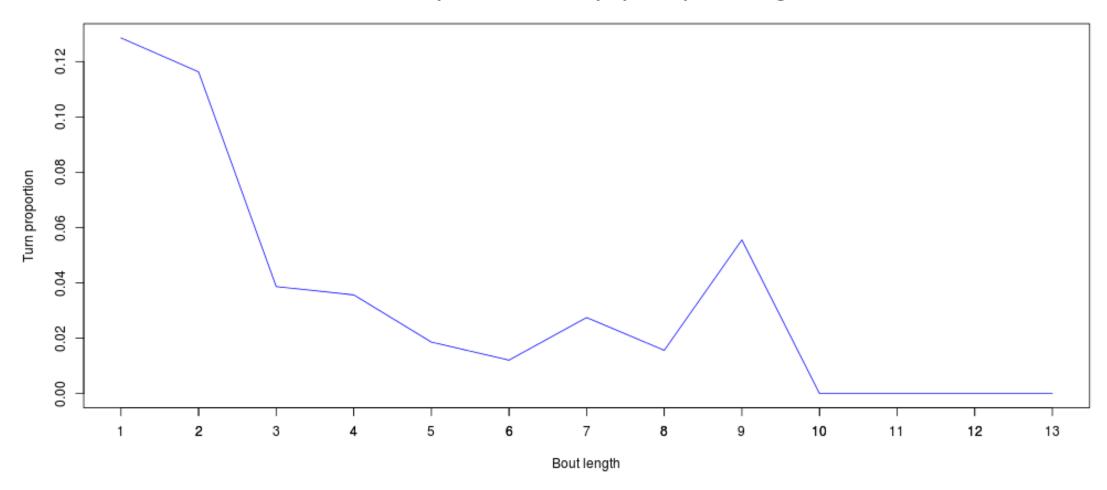
• (Dark)ApoLow:

In DarkApoLow Mean HBends proportion per bout length



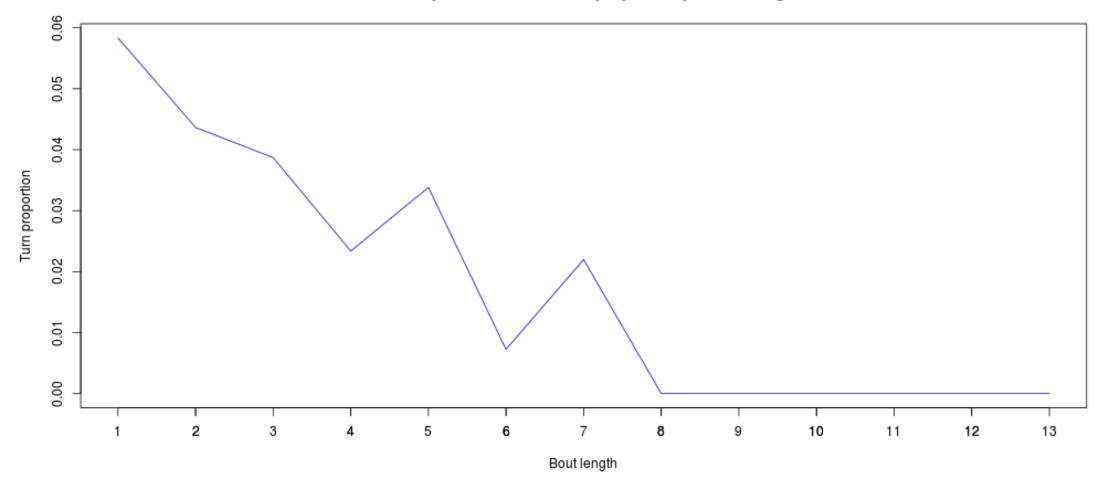
(Dark)ApoLow:

In DarkApoLow Mean IBends proportion per bout length



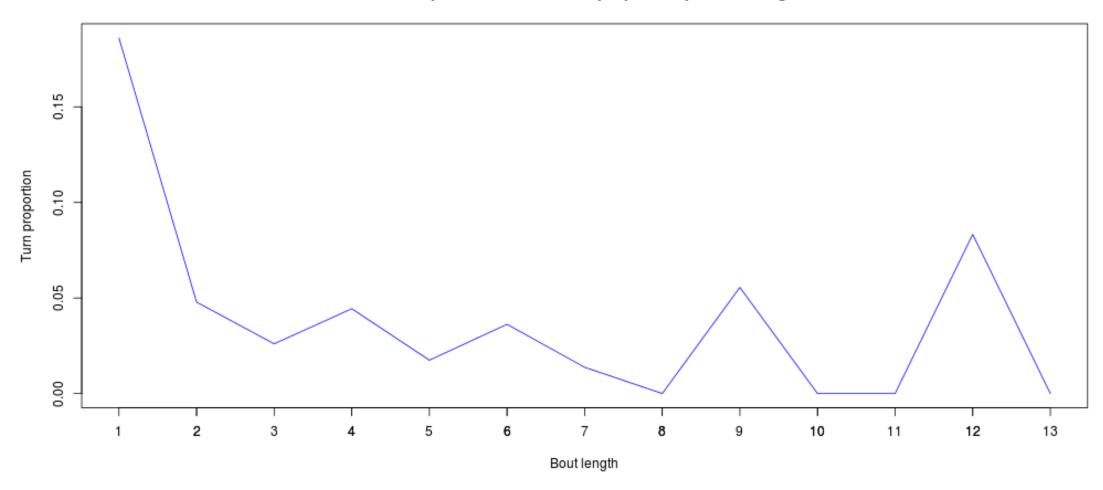
(Dark)ApoLow:

In DarkApoLow Mean JBends proportion per bout length



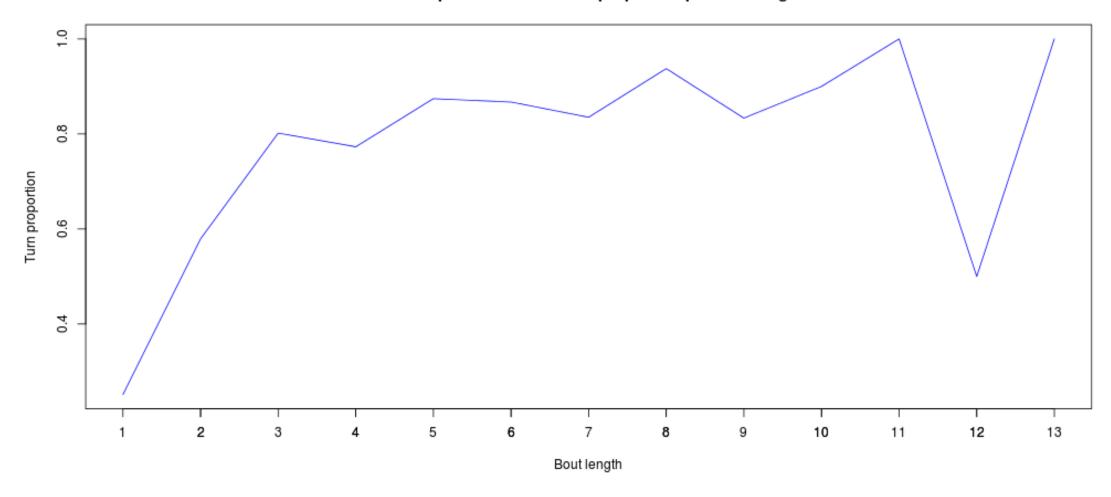
• (Dark)ApoLow:

In DarkApoLow Mean OBends proportion per bout length



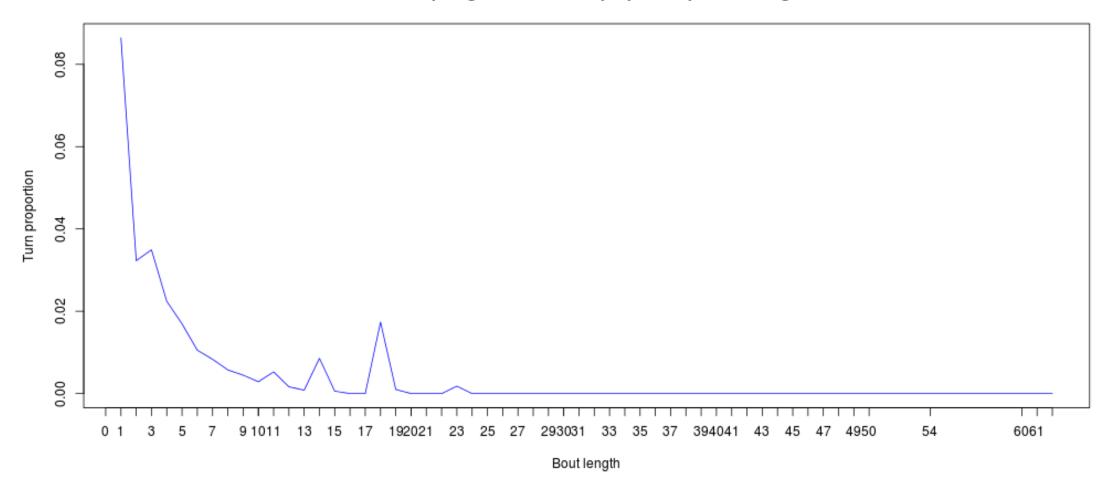
• (Dark)ApoLow:

In DarkApoLow Mean Scoots proportion per bout length



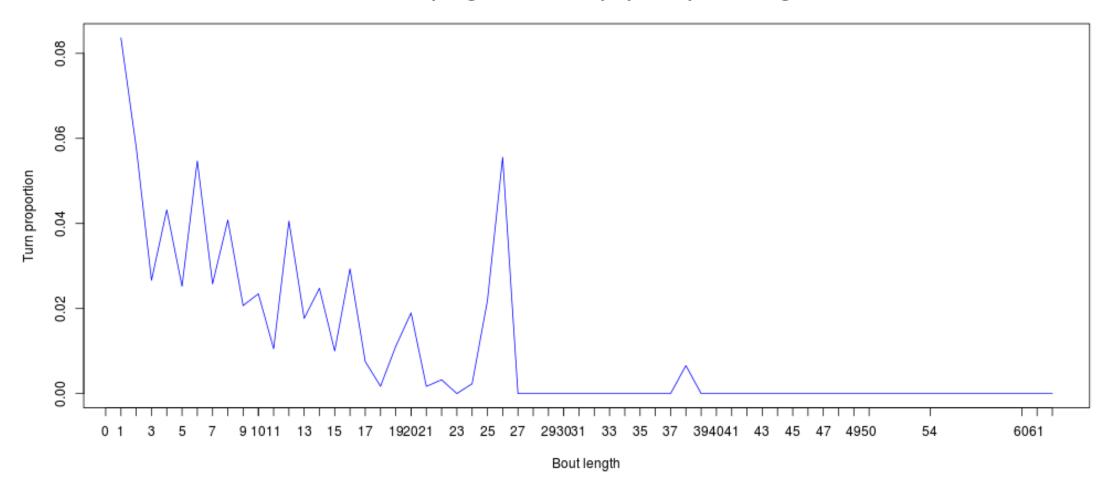
• (Dark)ApoHigh:

In DarkApoHigh Mean CBends proportion per bout length



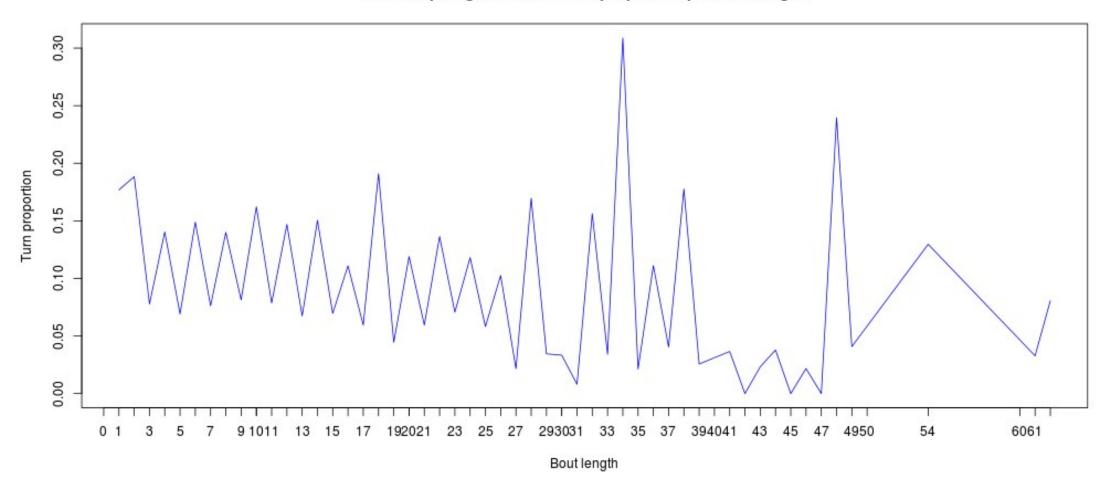
• (Dark)ApoHigh:

In DarkApoHigh Mean EBends proportion per bout length



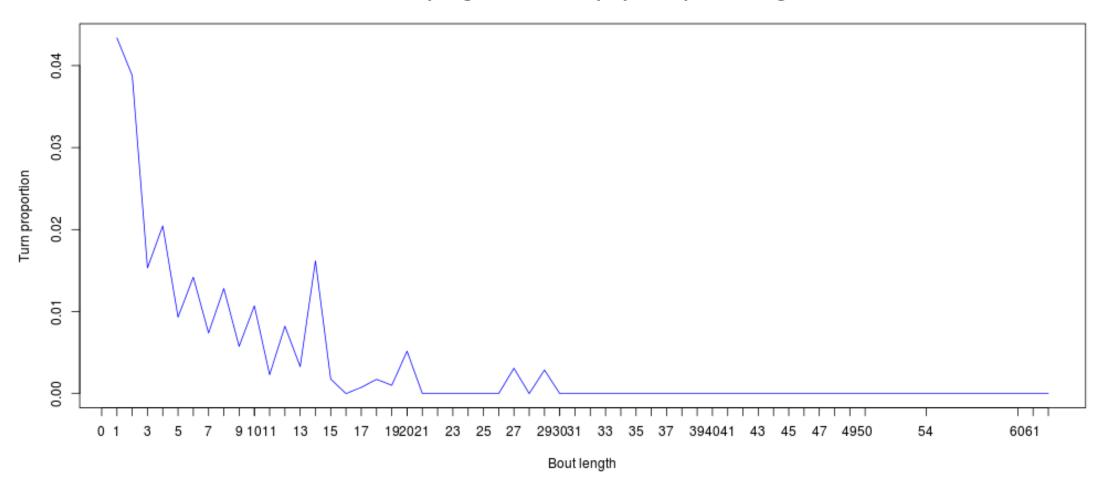
(Dark)ApoHigh:

In DarkApoHigh Mean GBends proportion per bout length



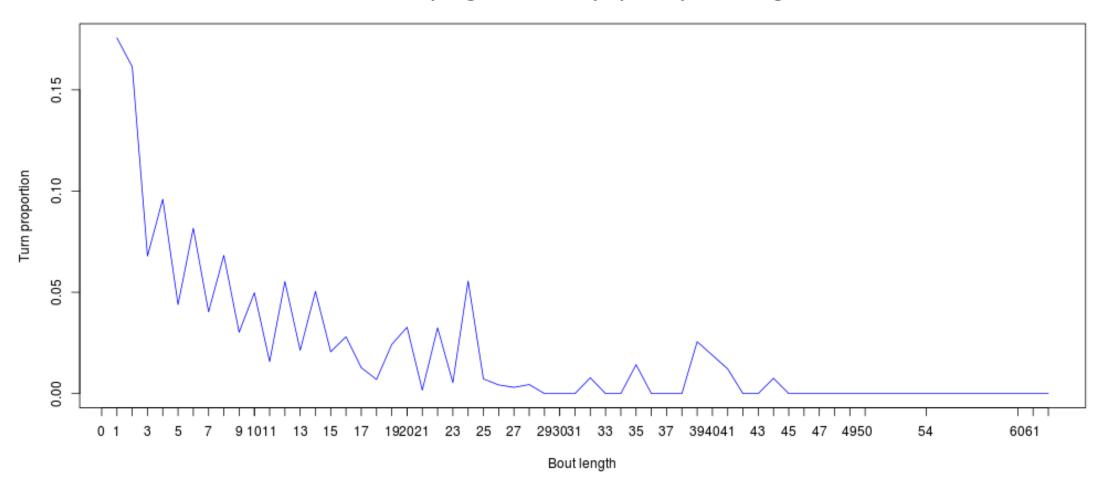
• (Dark)ApoHigh:

In DarkApoHigh Mean HBends proportion per bout length



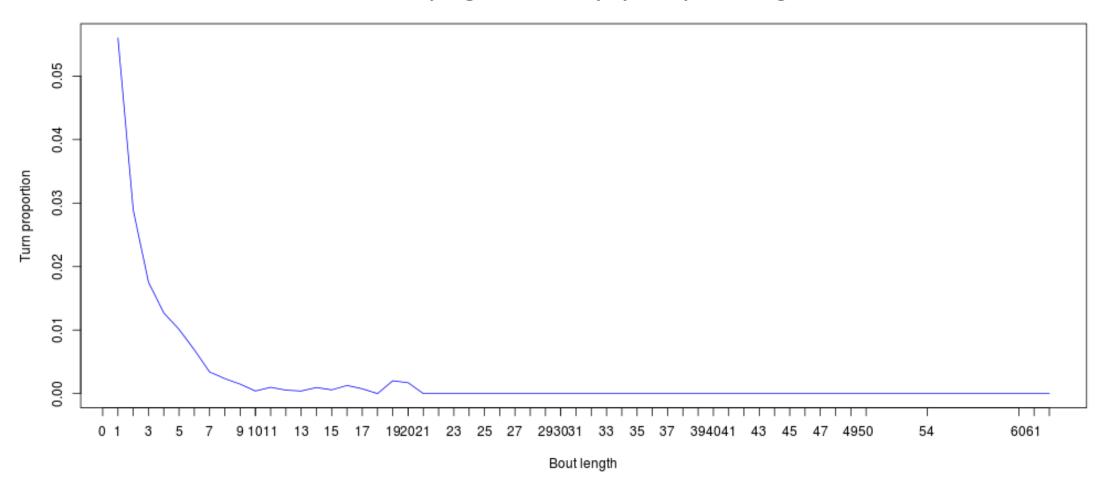
(Dark)ApoHigh:

In DarkApoHigh Mean IBends proportion per bout length



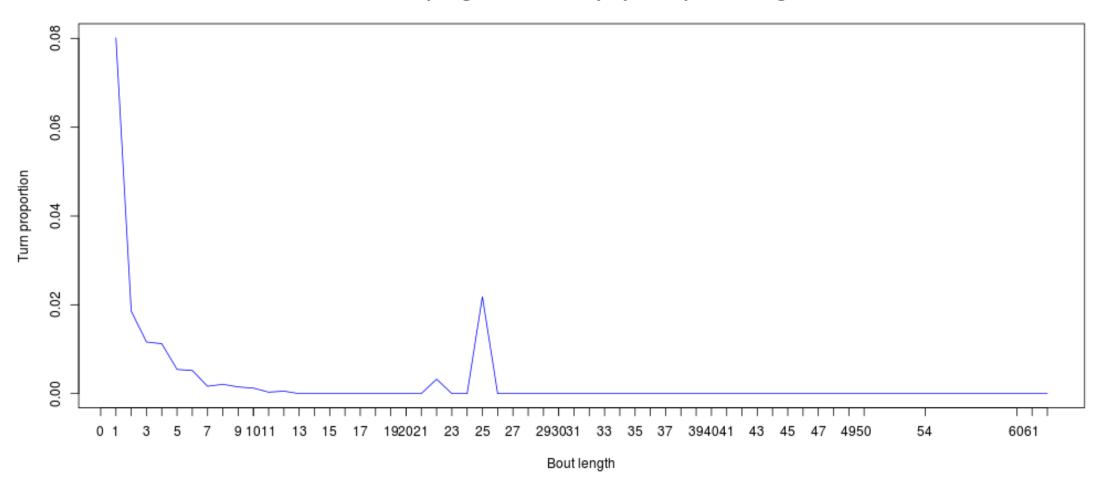
(Dark)ApoHigh:

In DarkApoHigh Mean JBends proportion per bout length



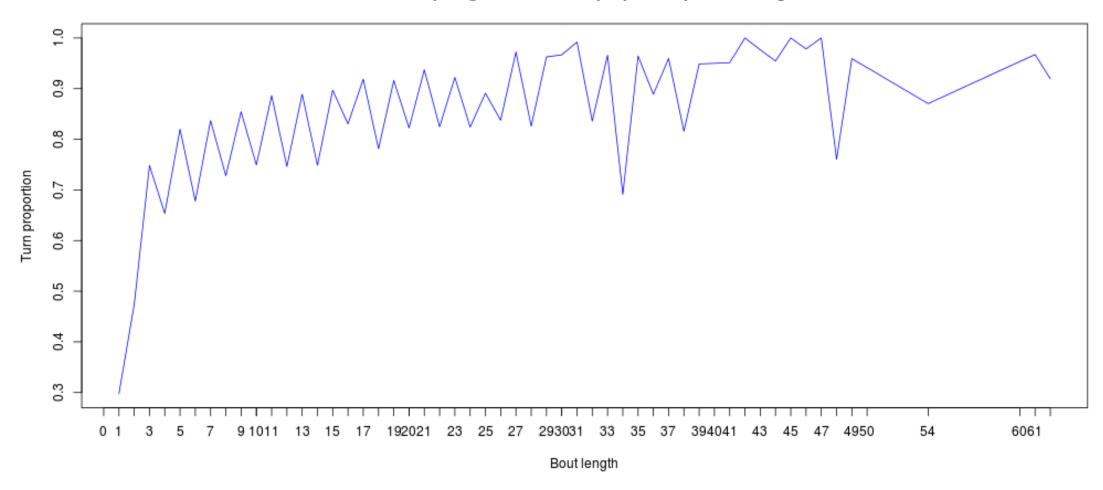
• (Dark)ApoHigh:

In DarkApoHigh Mean OBends proportion per bout length

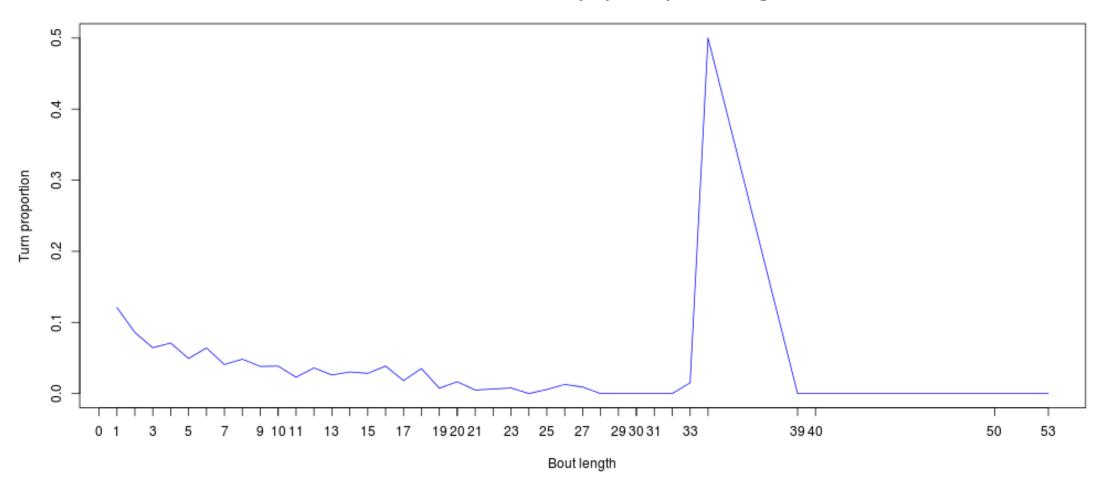


• (Dark)ApoHigh:

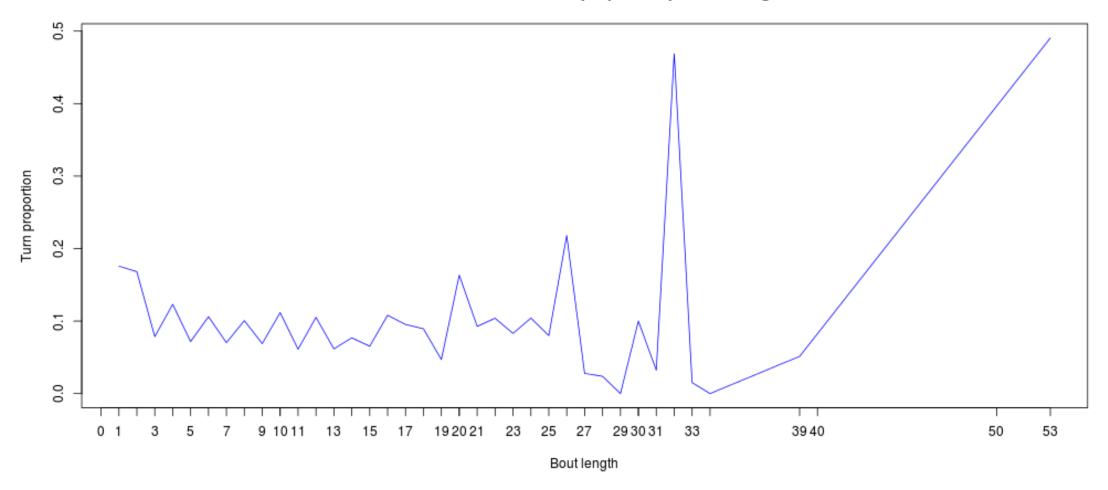
In DarkApoHigh Mean Scoots proportion per bout length



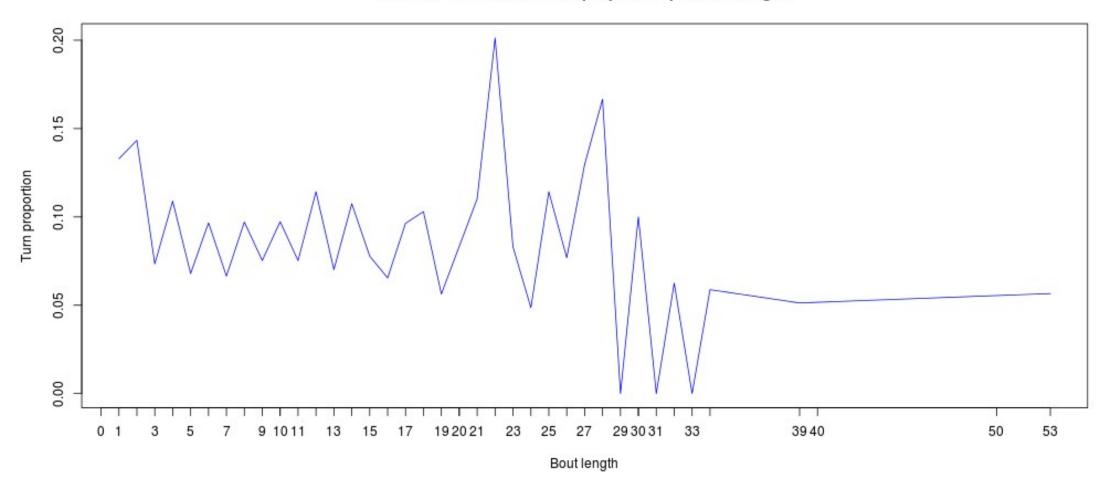
In DarkPTZ Mean CBends proportion per bout length



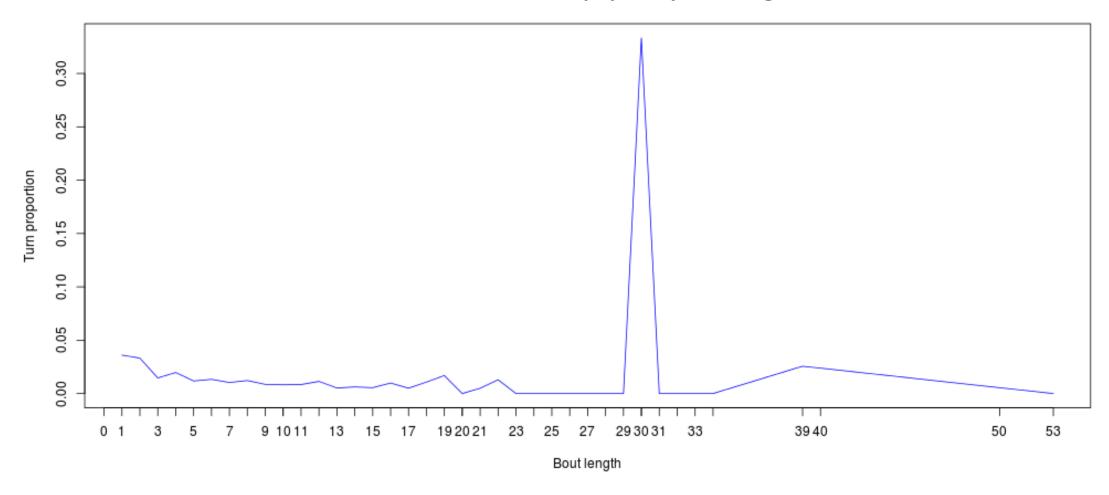
In DarkPTZ Mean EBends proportion per bout length



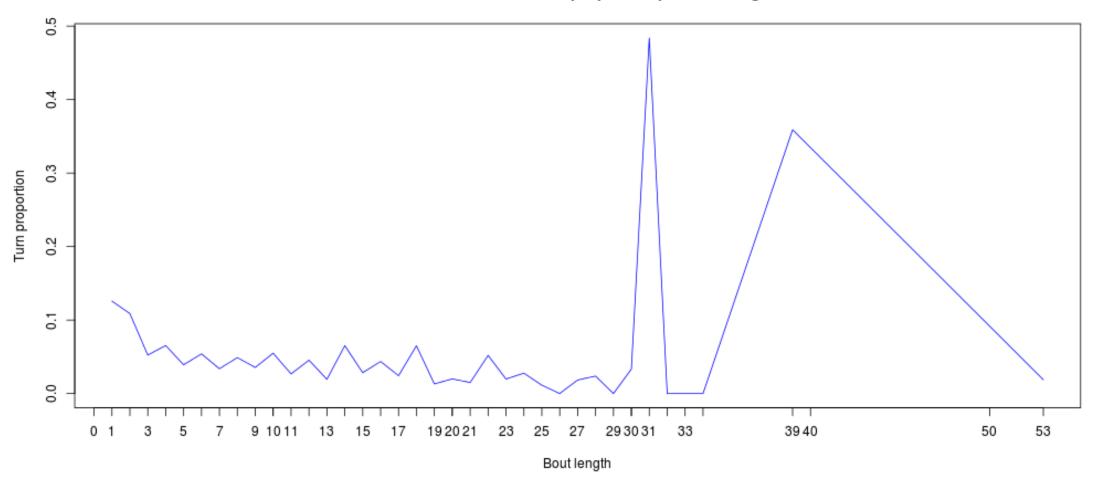
In DarkPTZ Mean GBends proportion per bout length



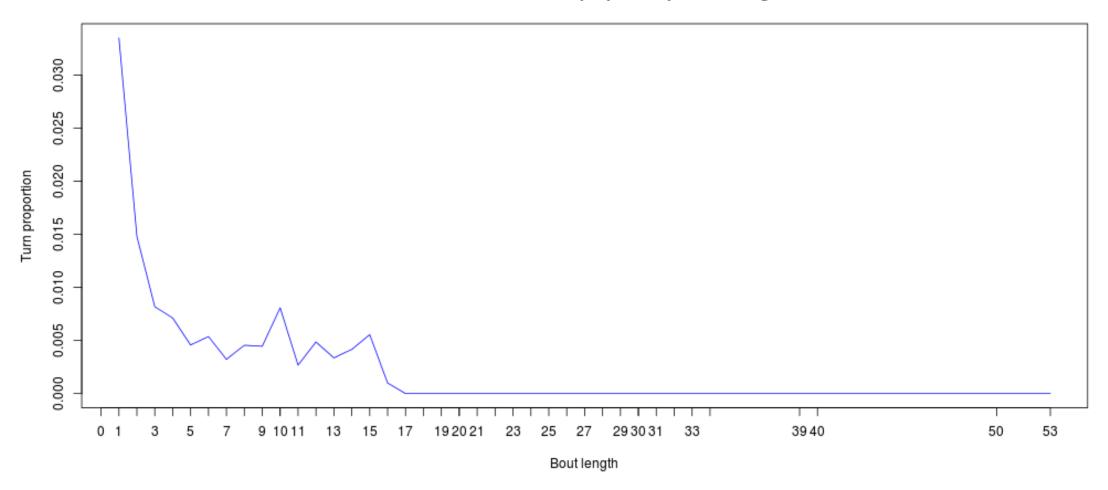
In DarkPTZ Mean HBends proportion per bout length



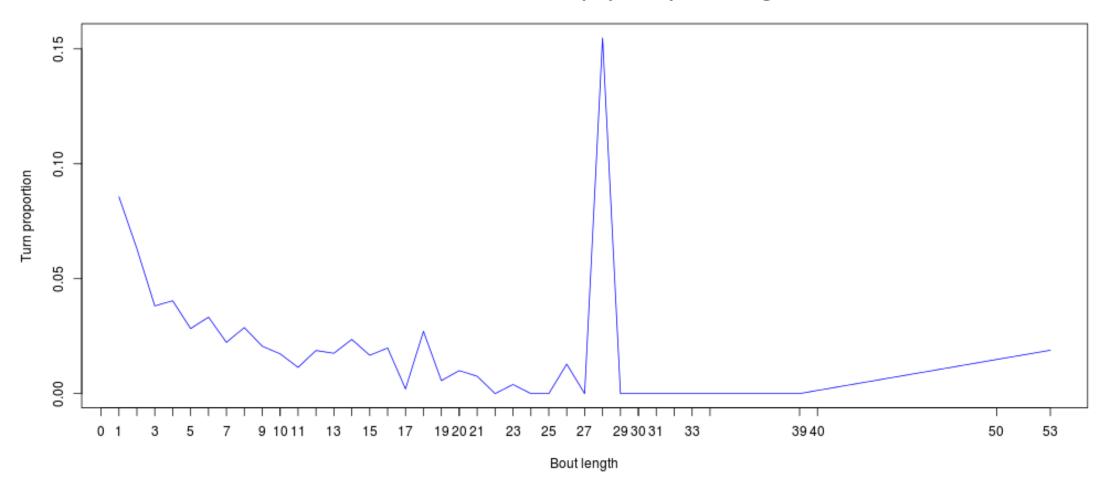
In DarkPTZ Mean IBends proportion per bout length



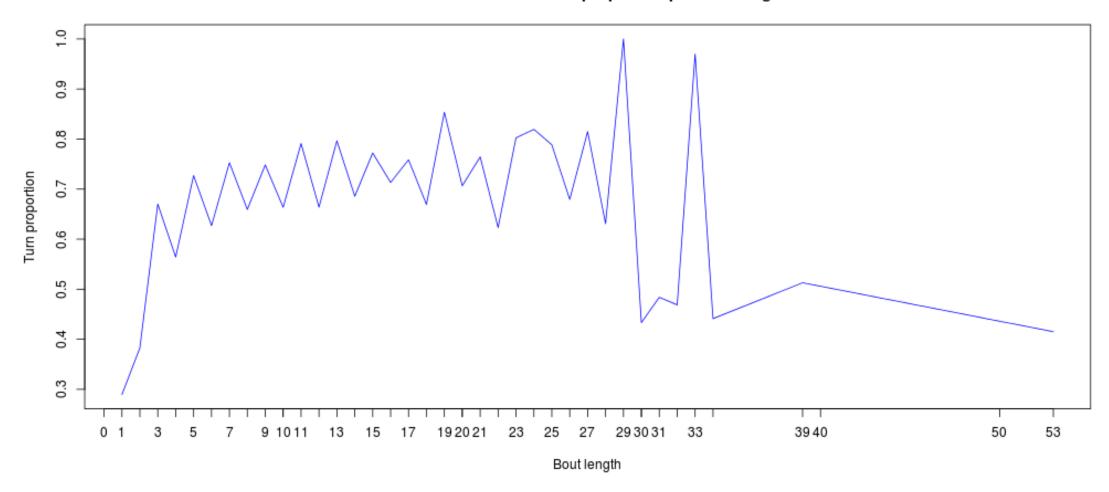
In DarkPTZ Mean JBends proportion per bout length



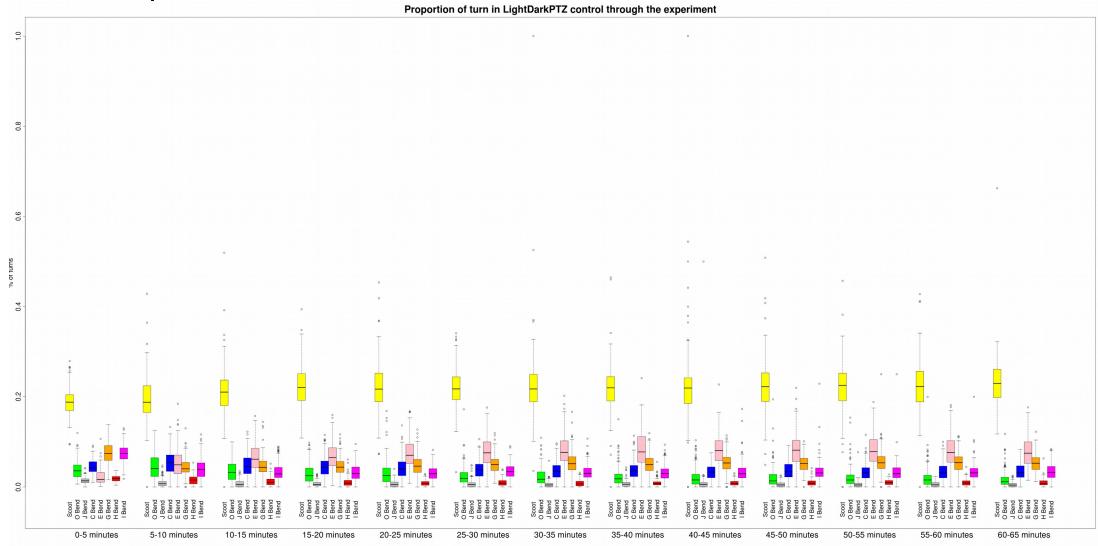
In DarkPTZ Mean OBends proportion per bout length



In DarkPTZ Mean Scoots proportion per bout length

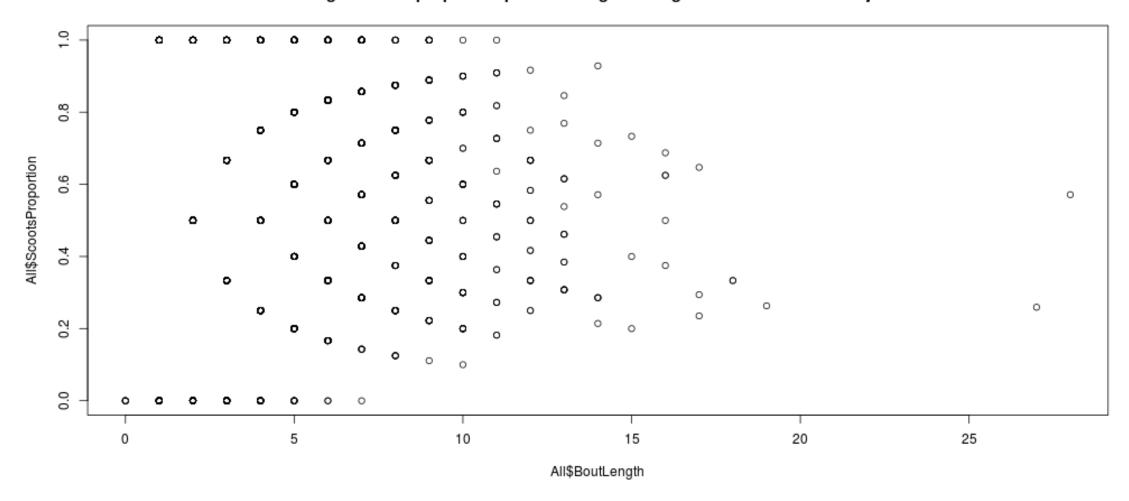


 Hard to say how does the experiment condition itself (adjusted for the bout length and frequency changes) influences the turn occurrences, for example:



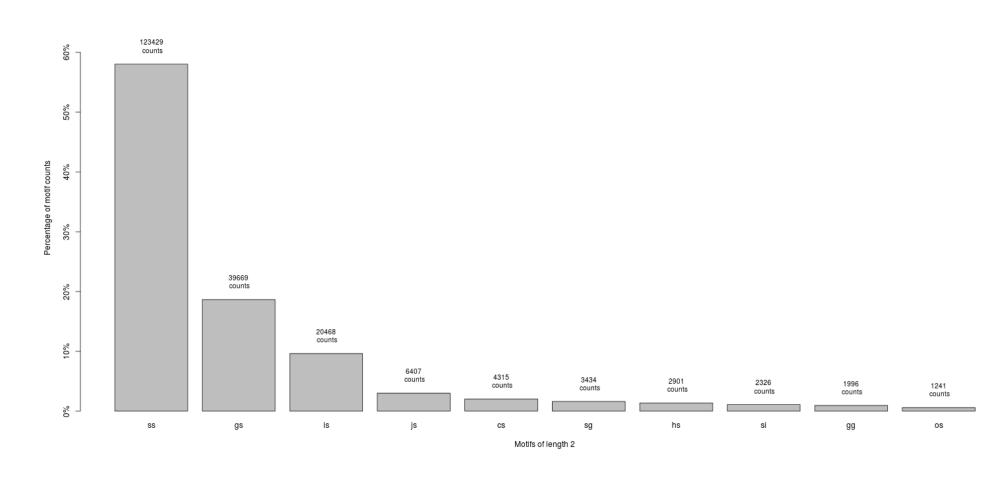
 With averaging over the subjects, action sequences or bouts, a lot of information is lost, but otherwise the data is messy, example:

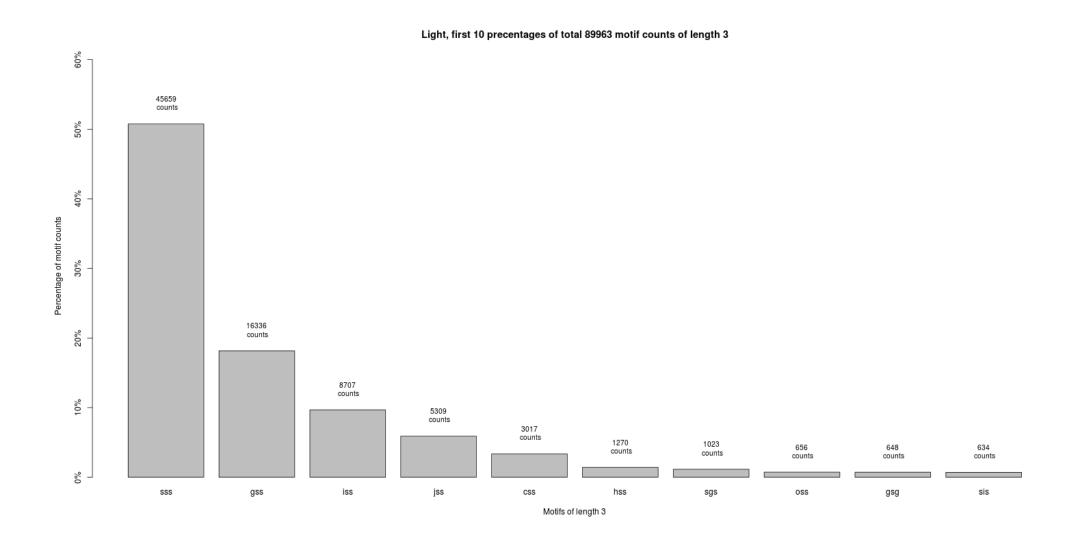
In Light Scoots proportion per bout length through all time for all 144 subjects



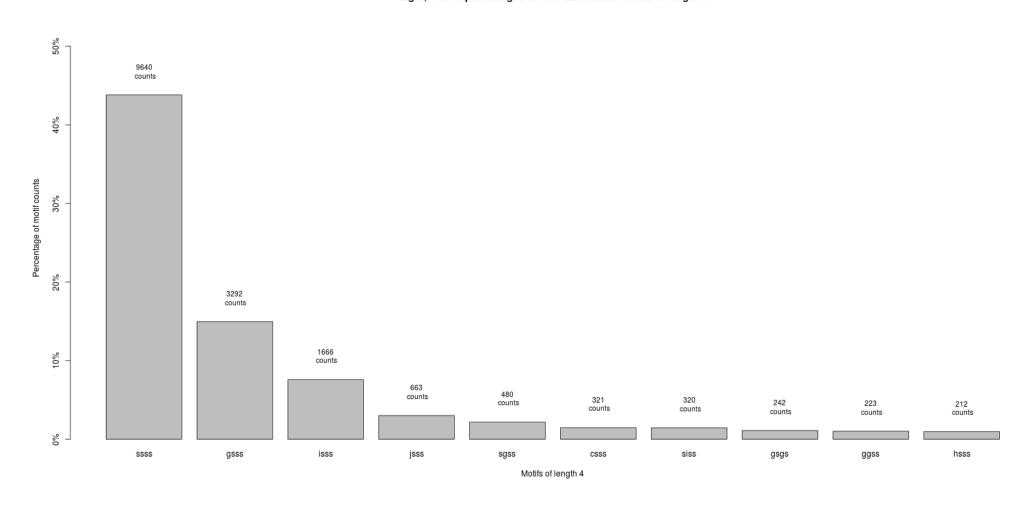
- Simple motif search for motif lengths 2:10, confirmed the large proportion of Scoots:
- Light:

Light, first 10 precentages of total 212705 motif counts of length 2

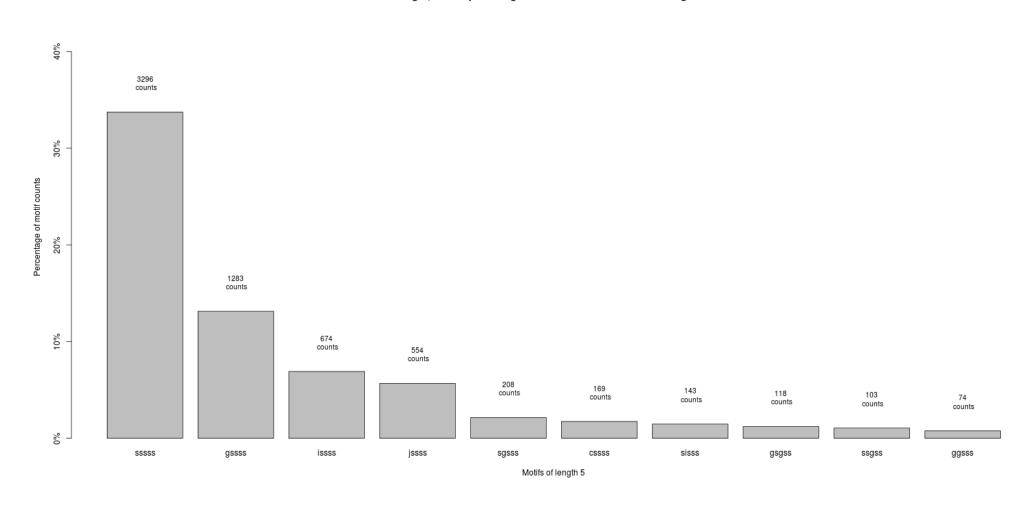




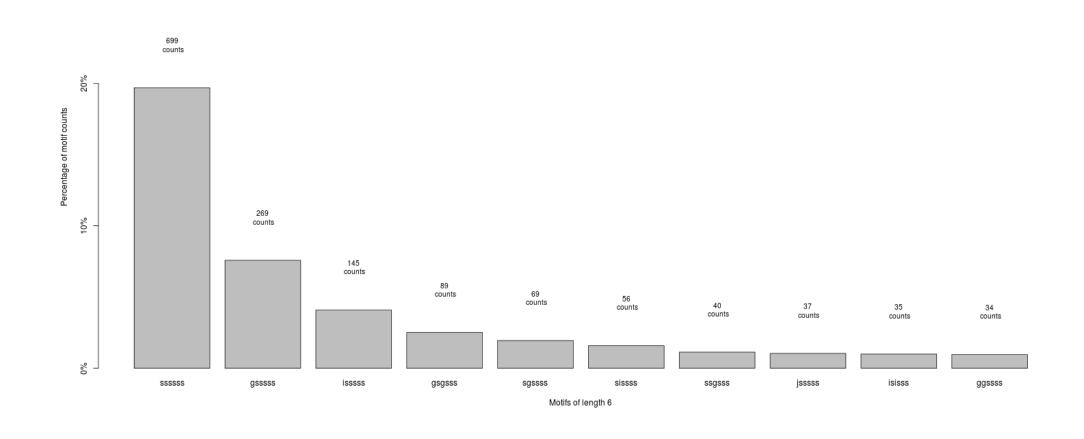
Light, first 10 precentages of total 22010 motif counts of length 4



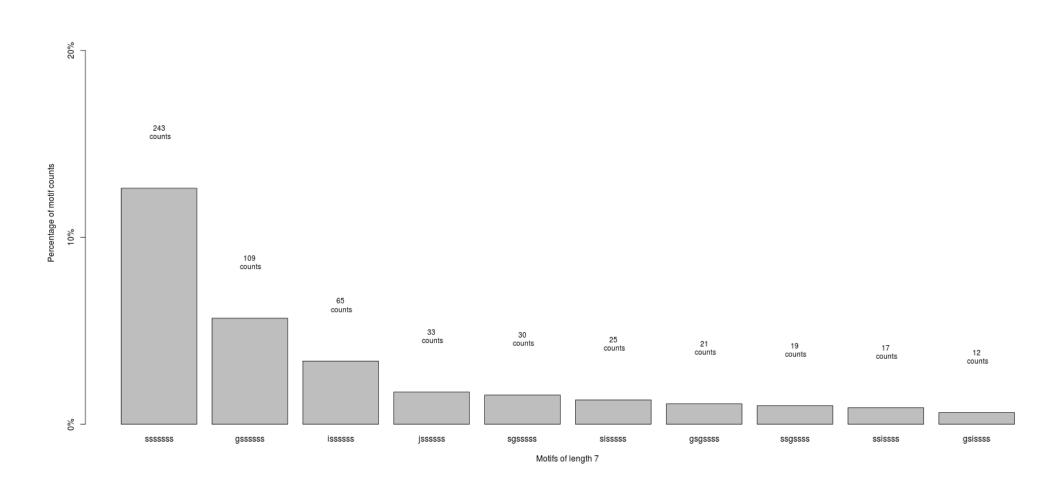
Light, first 10 precentages of total 9770 motif counts of length 5



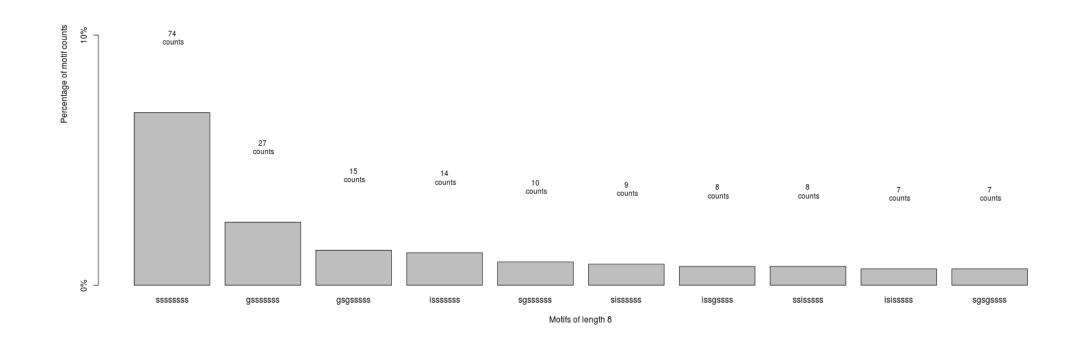
Light, first 10 precentages of total 3549 motif counts of length 6



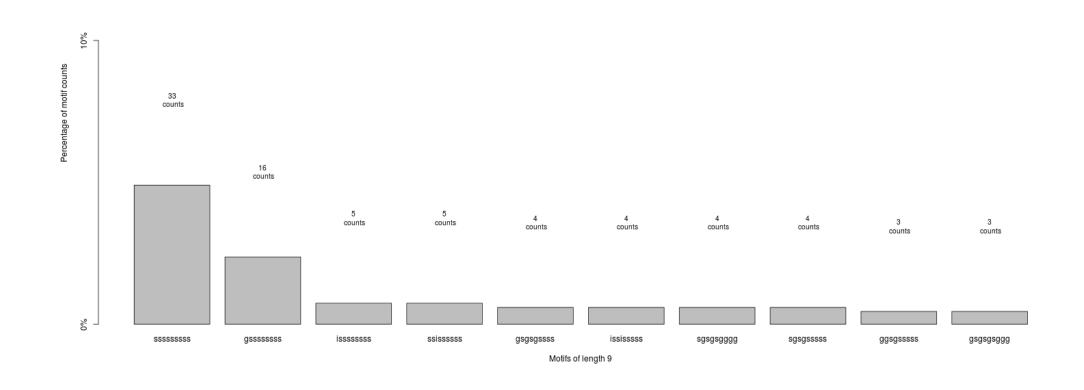
Light, first 10 precentages of total 1924 motif counts of length 7



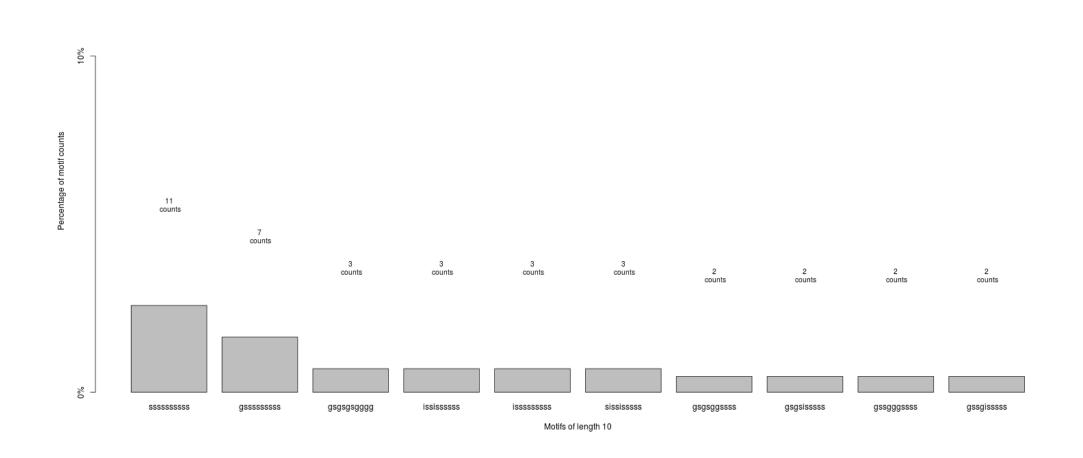
Light, first 10 precentages of total 1073 motif counts of length 8



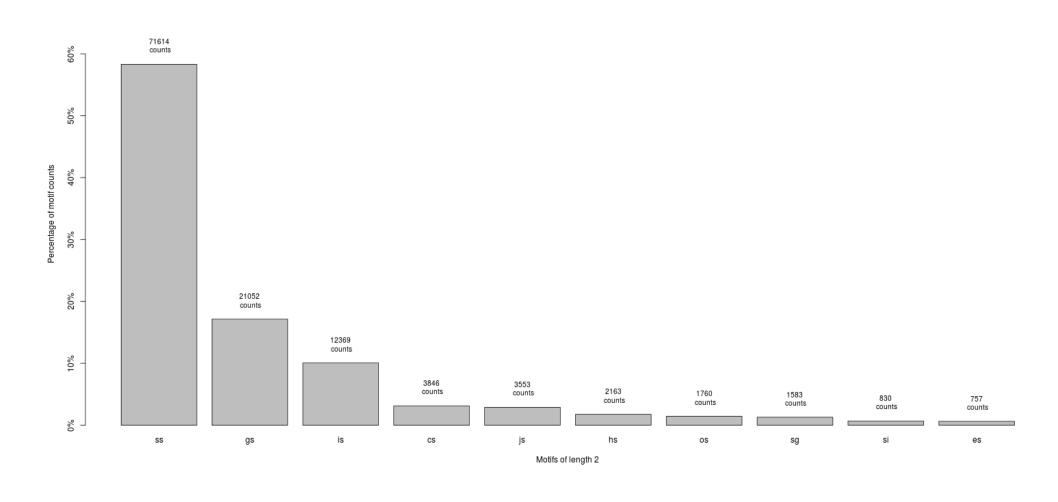
Light, first 10 precentages of total 674 motif counts of length 9



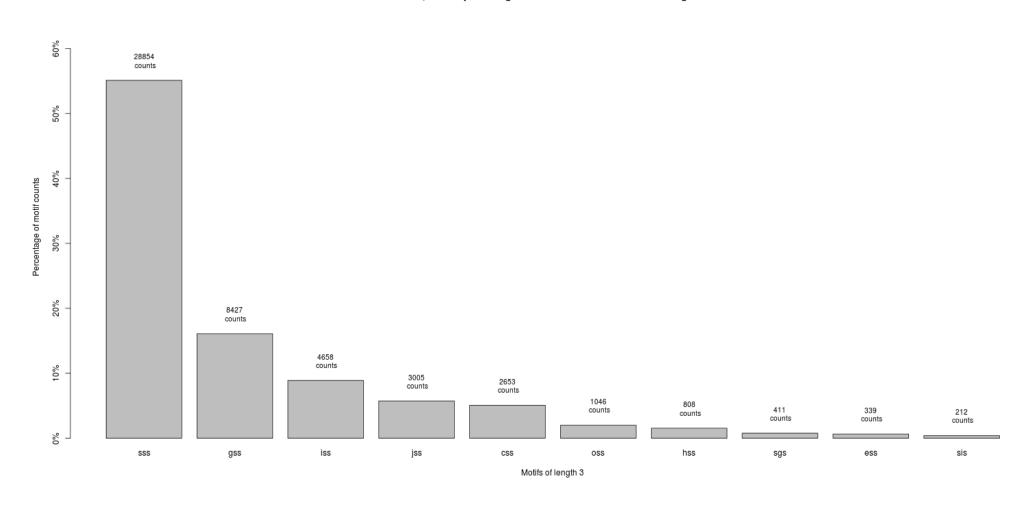
Light, first 10 precentages of total 426 motif counts of length 10



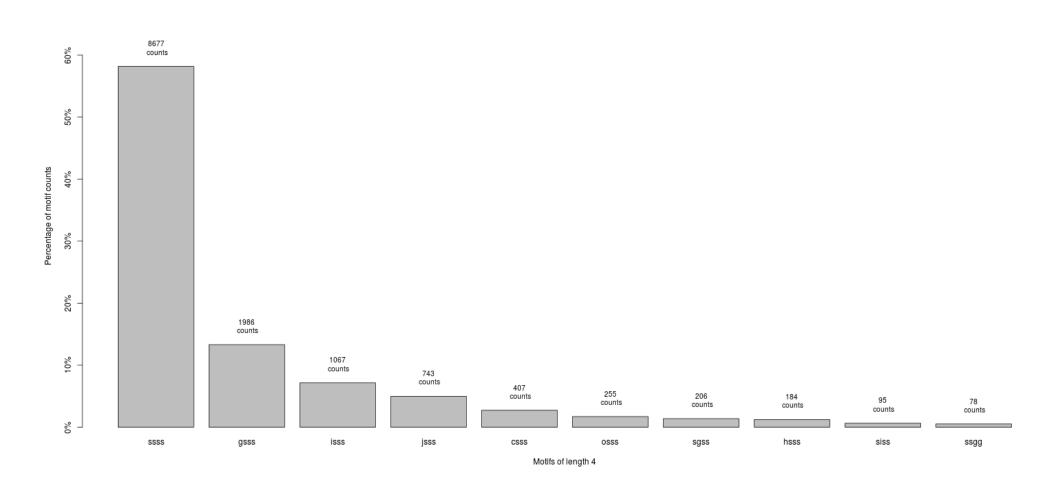
Dark, first 10 precentages of total 122824 motif counts of length 2



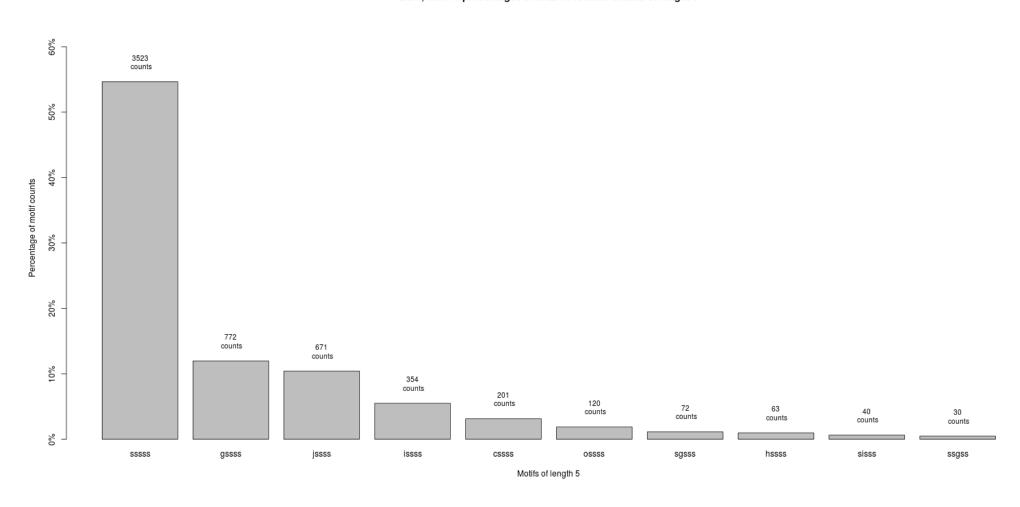
Dark, first 10 precentages of total 52371 motif counts of length 3



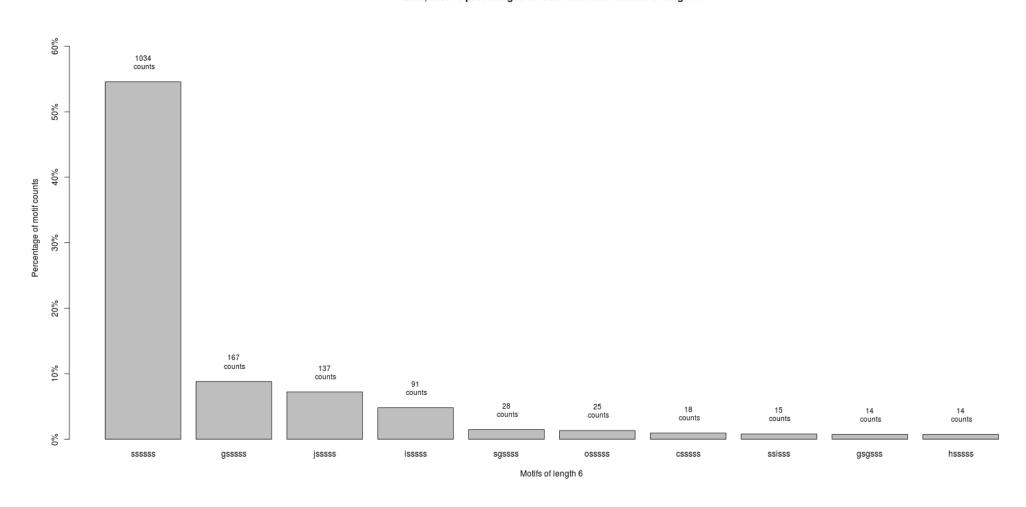
Dark, first 10 precentages of total 14916 motif counts of length 4



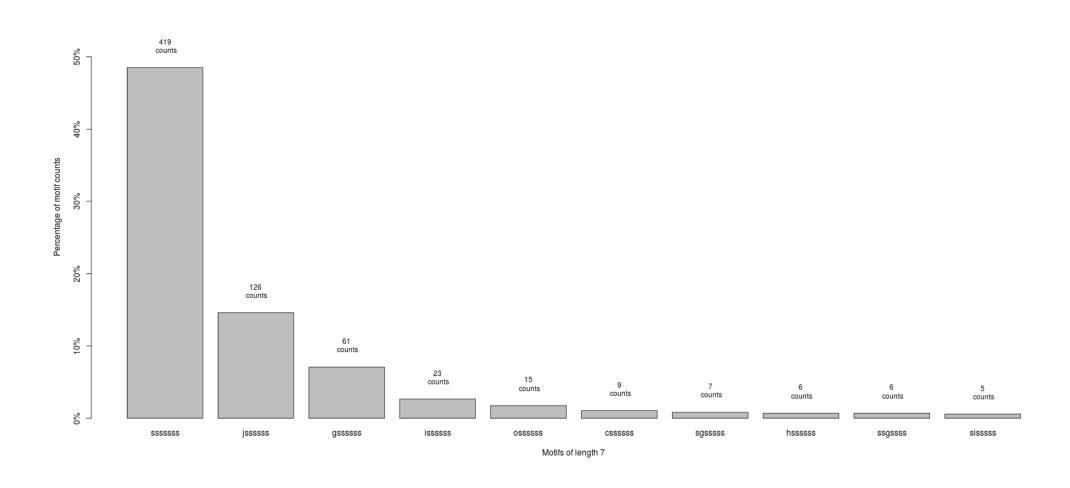
Dark, first 10 precentages of total 6448 motif counts of length 5



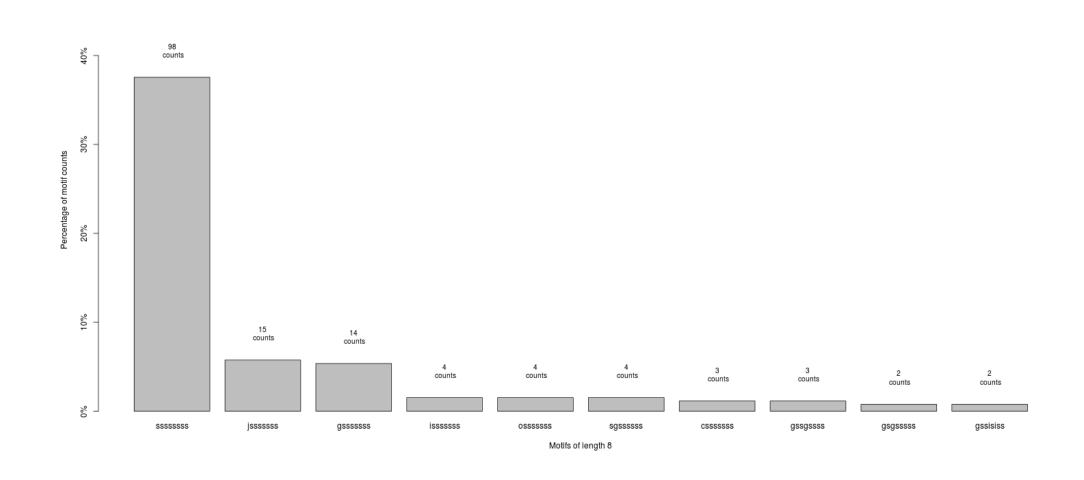
Dark, first 10 precentages of total 1895 motif counts of length 6



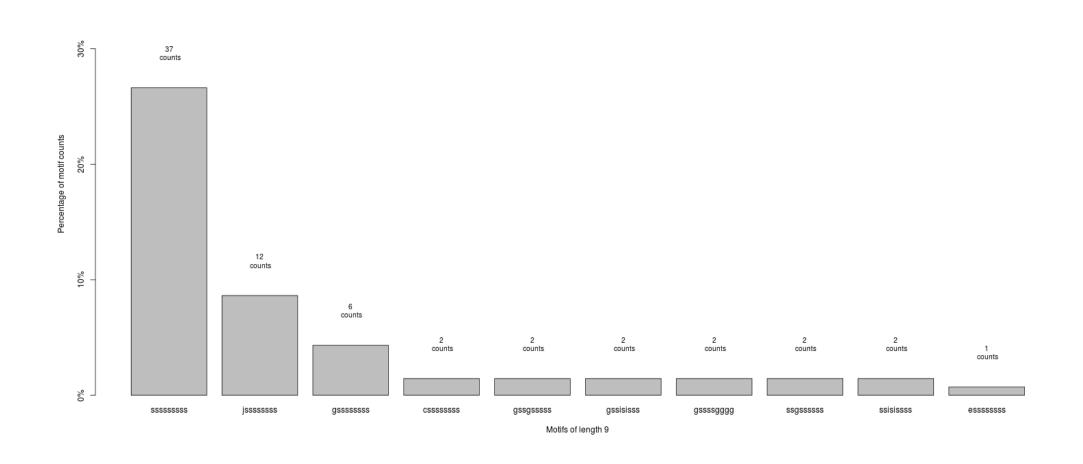
Dark, first 10 precentages of total 864 motif counts of length 7



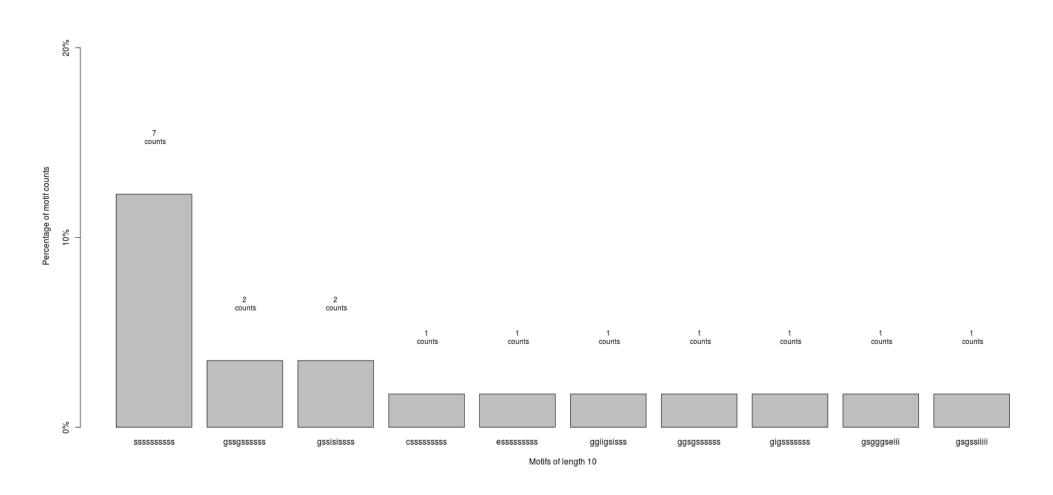
Dark, first 10 precentages of total 261 motif counts of length 8



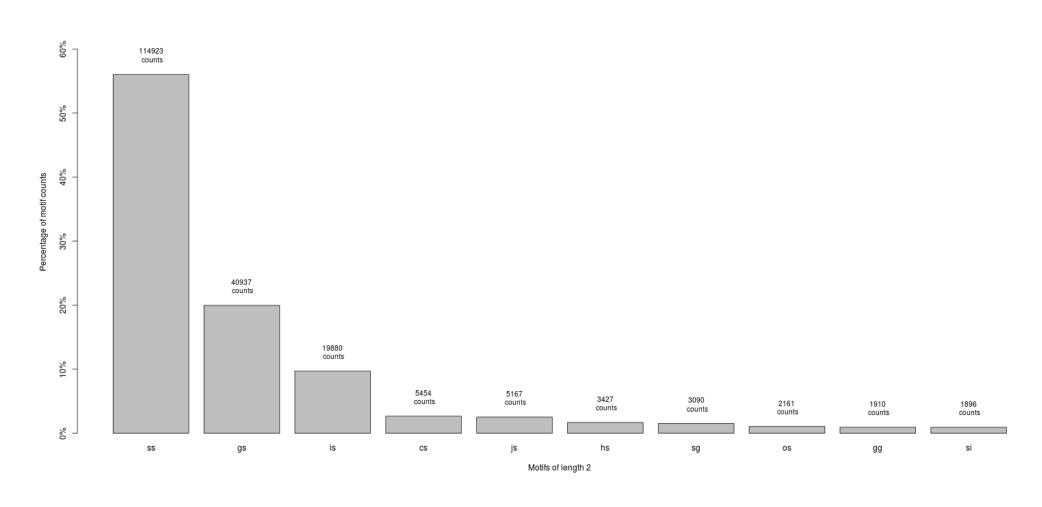
Dark, first 10 precentages of total 139 motif counts of length 9



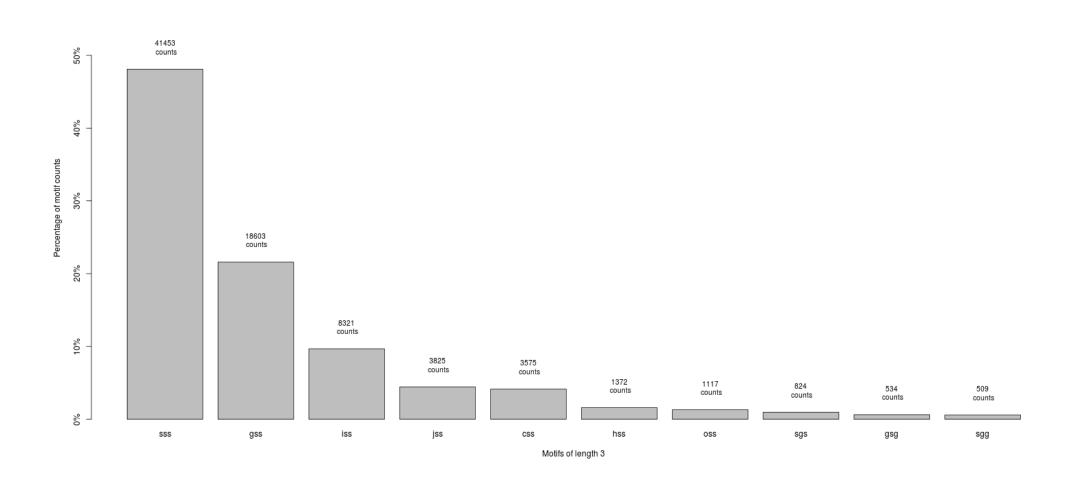
Dark, first 10 precentages of total 57 motif counts of length 10



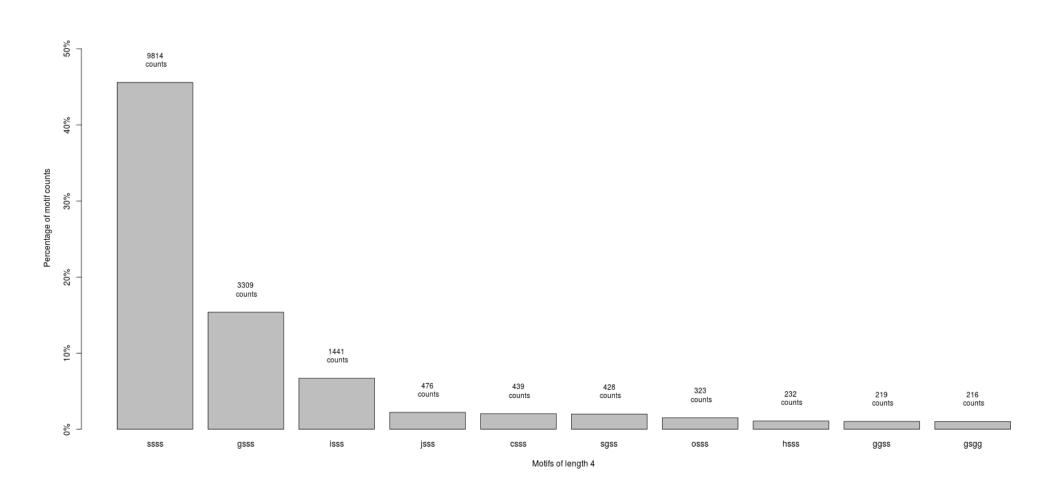
LightDark, first 10 precentages of total 205077 motif counts of length 2



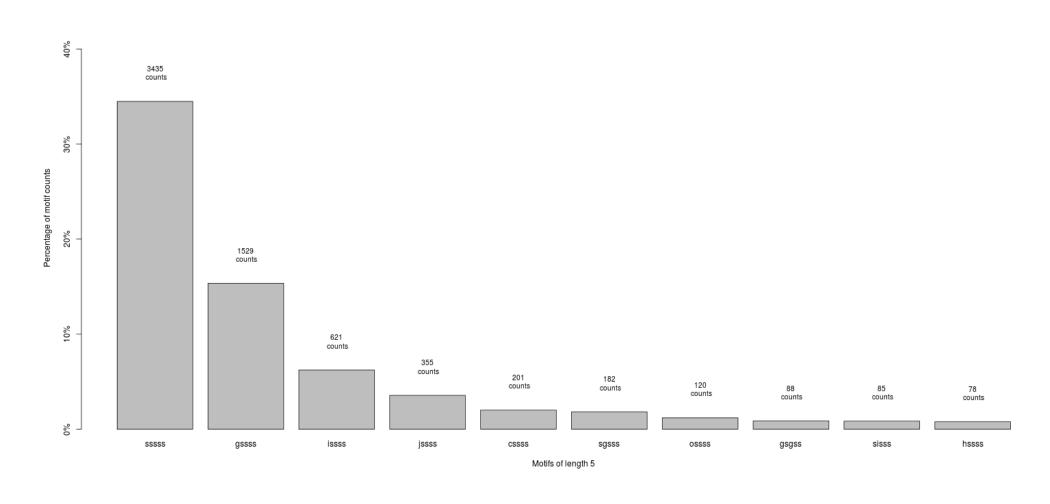
LightDark, first 10 precentages of total 86177 motif counts of length 3



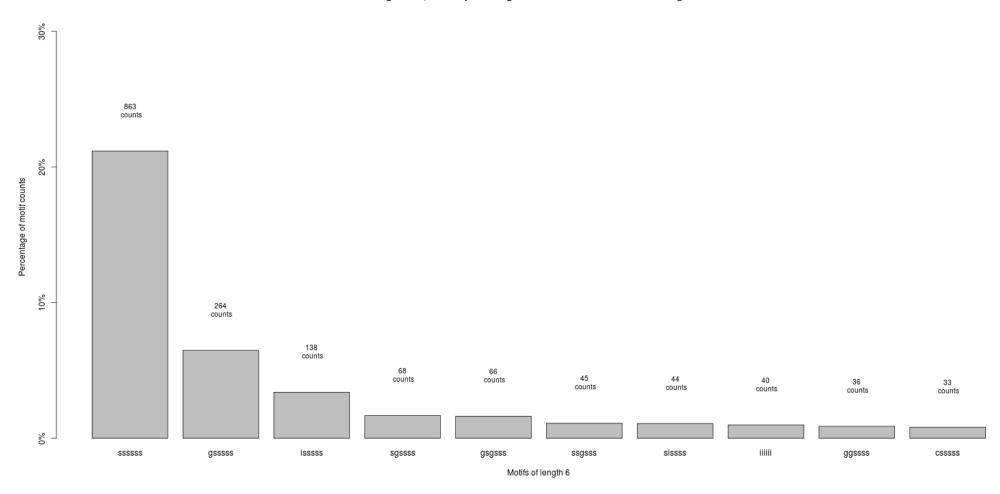
LightDark, first 10 precentages of total 21534 motif counts of length 4



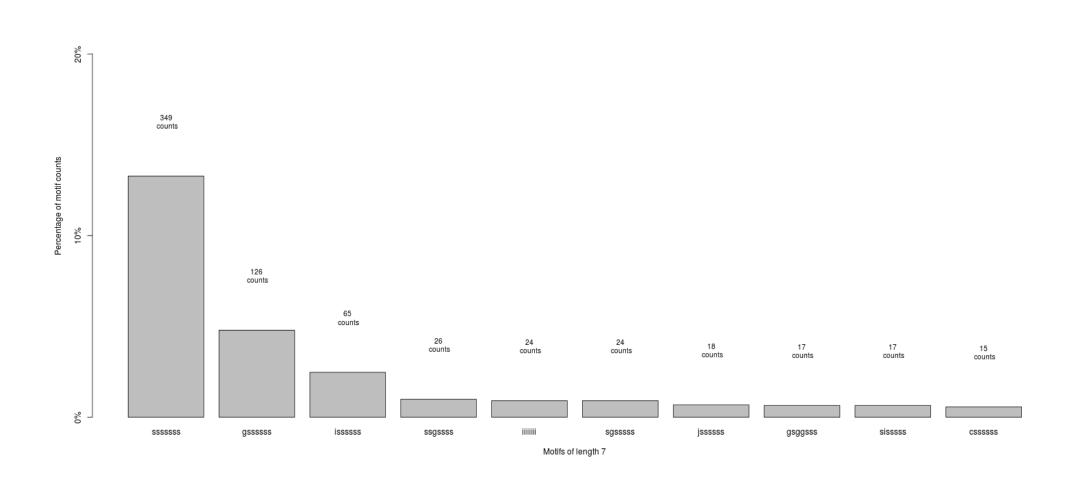
LightDark, first 10 precentages of total 9961 motif counts of length 5



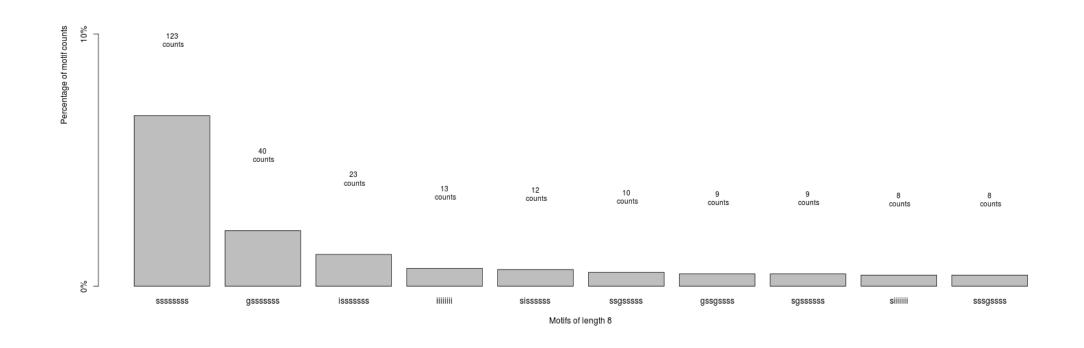




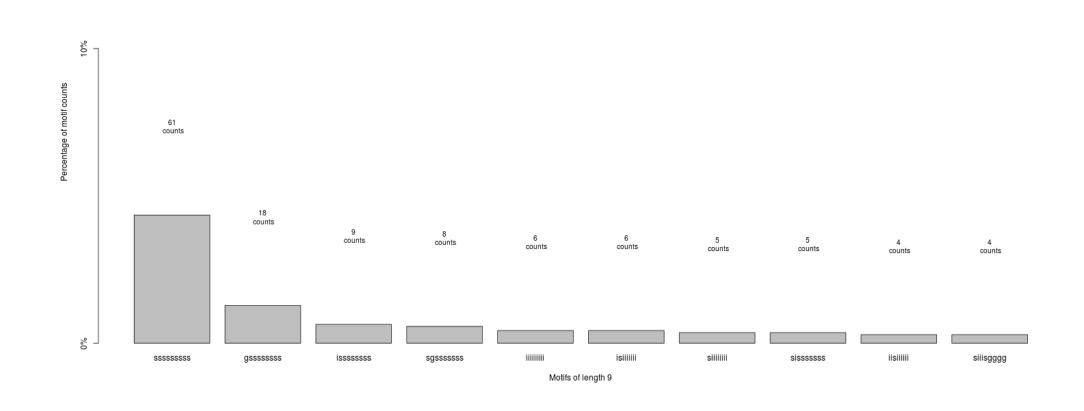
LightDark, first 10 precentages of total 2628 motif counts of length 7



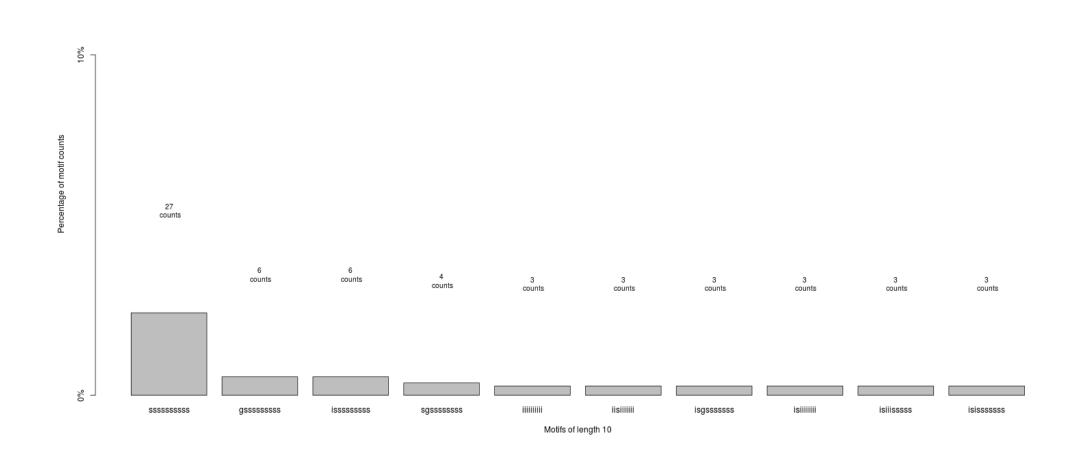
LightDark, first 10 precentages of total 1819 motif counts of length 8



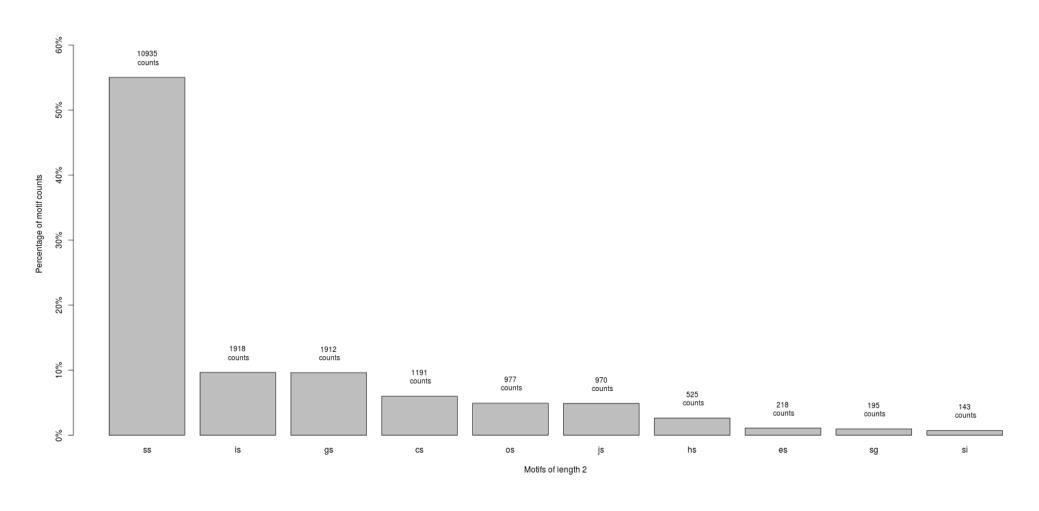
LightDark, first 10 precentages of total 1402 motif counts of length 9

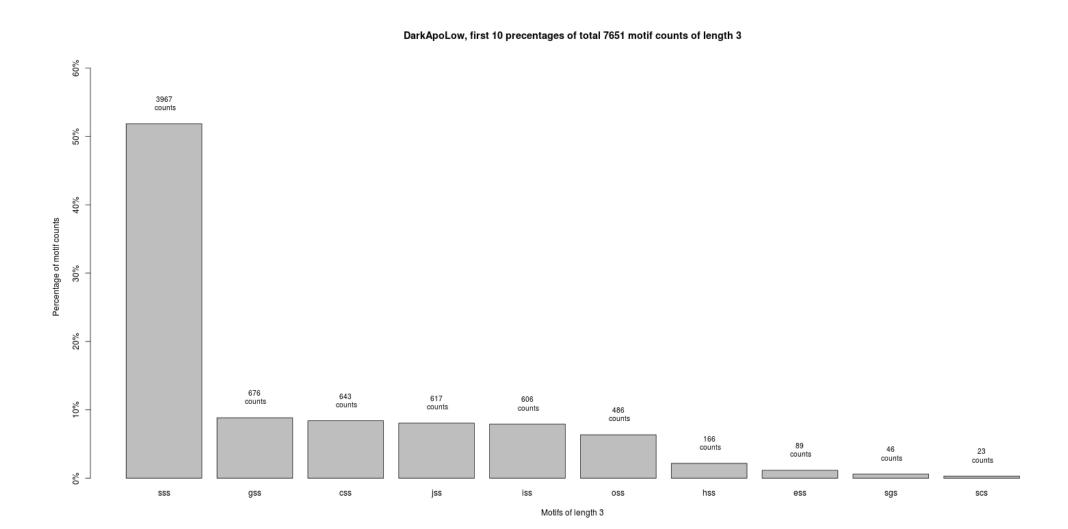


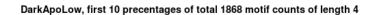
LightDark, first 10 precentages of total 1117 motif counts of length 10

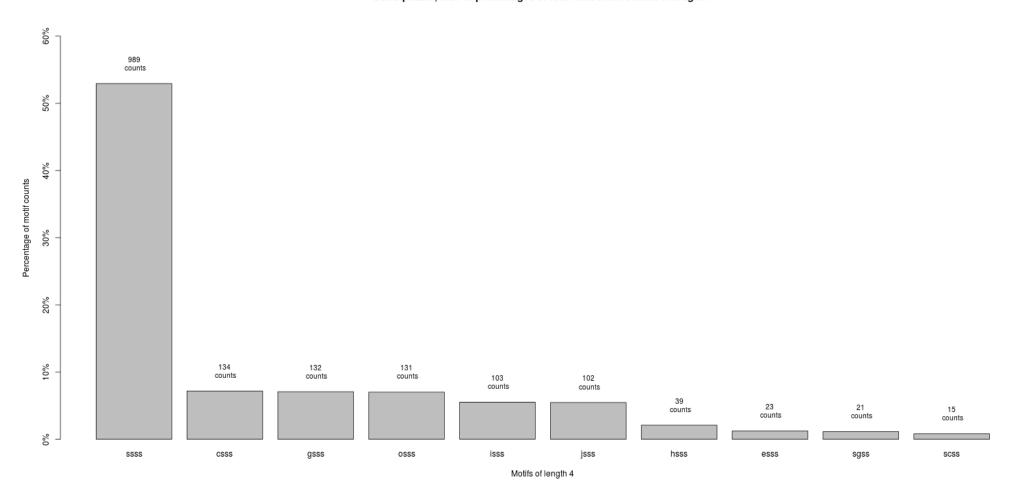


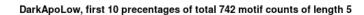
DarkApoLow, first 10 precentages of total 19866 motif counts of length 2

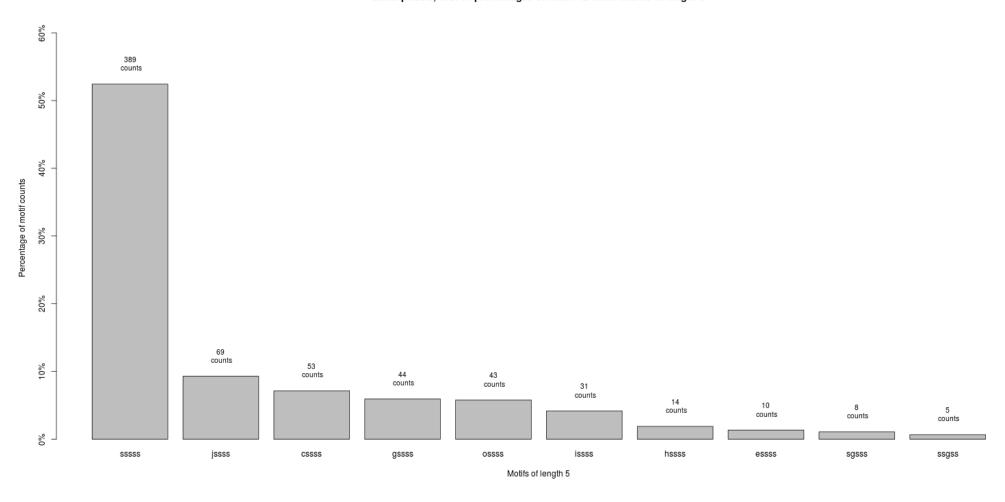


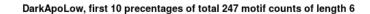


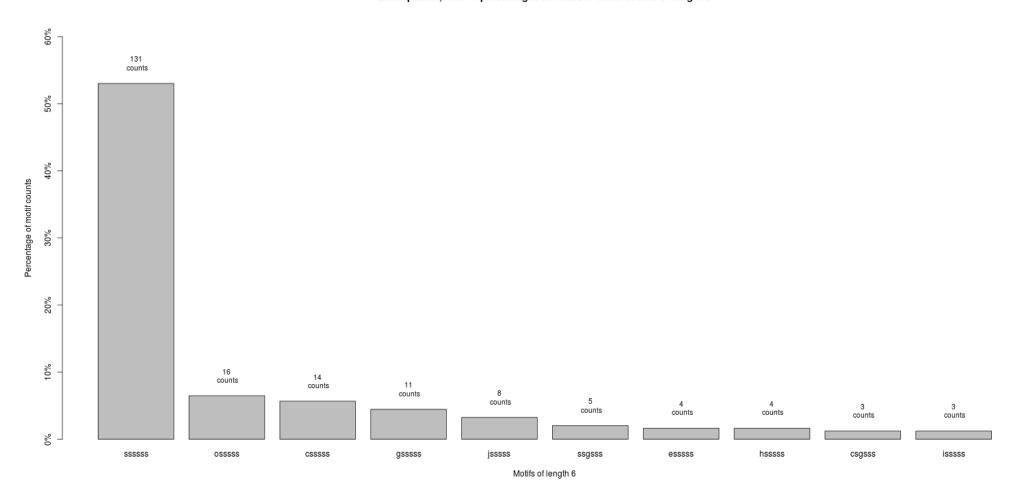




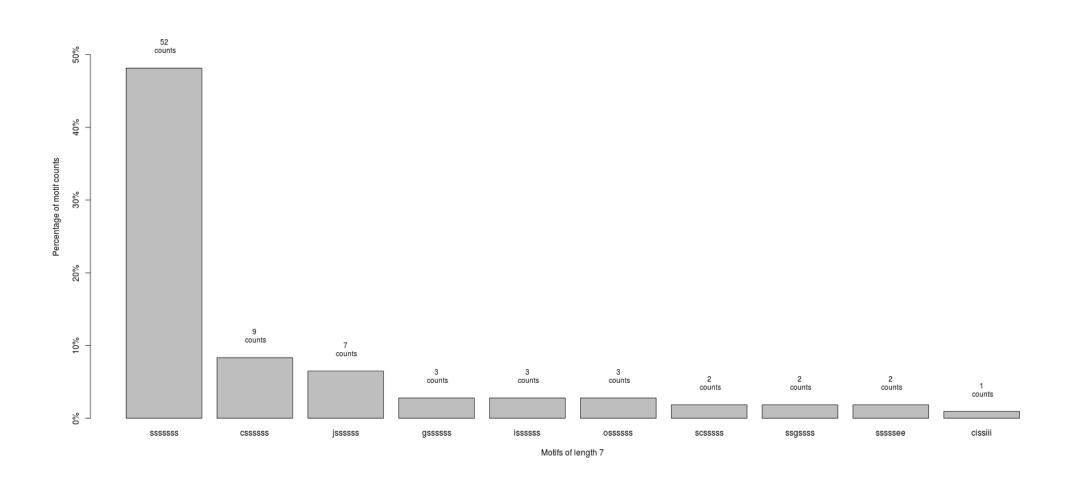




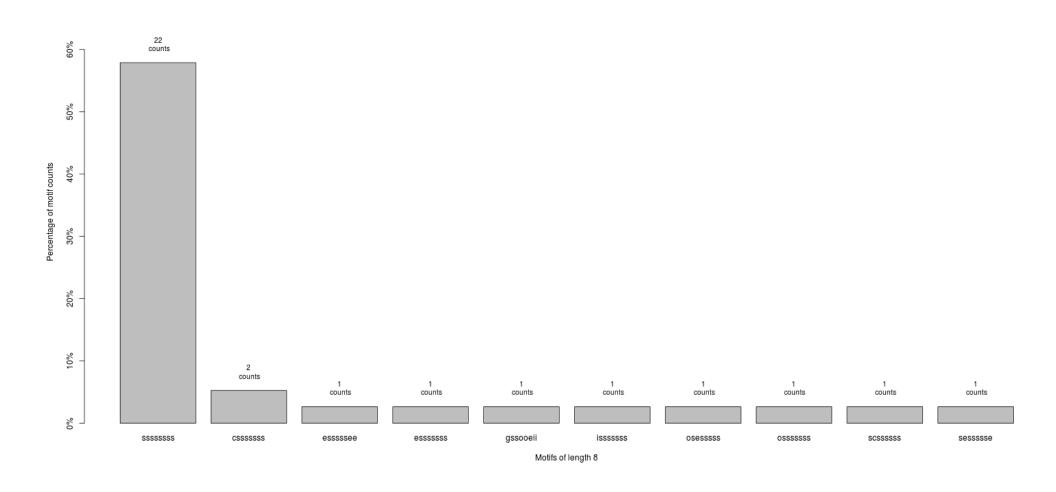




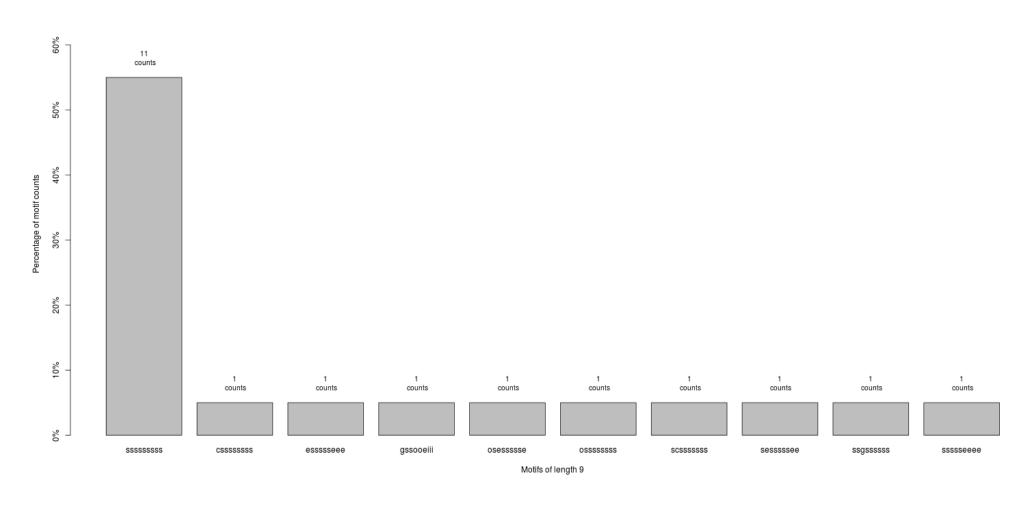
DarkApoLow, first 10 precentages of total 108 motif counts of length 7

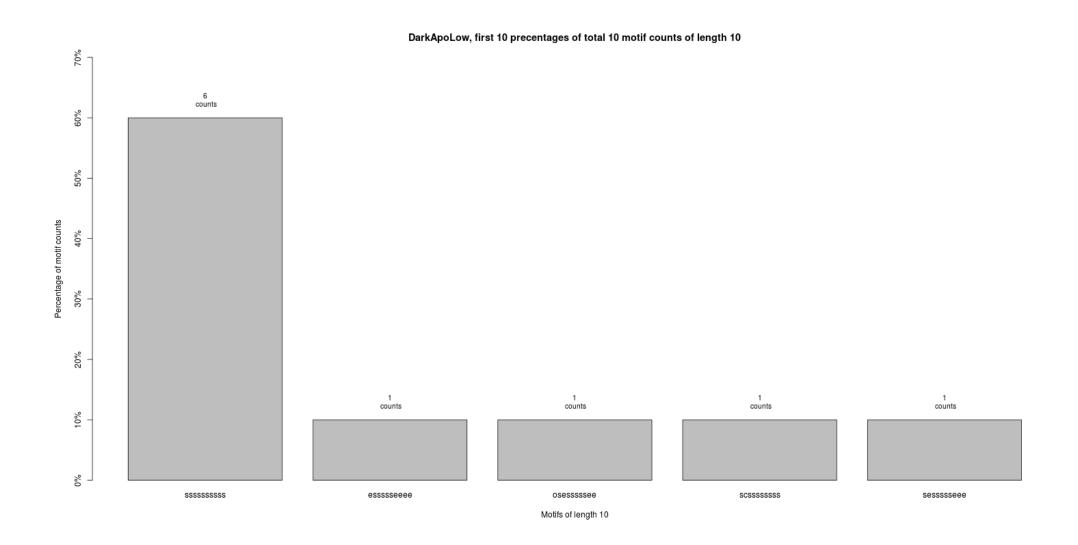


DarkApoLow, first 10 precentages of total 38 motif counts of length 8

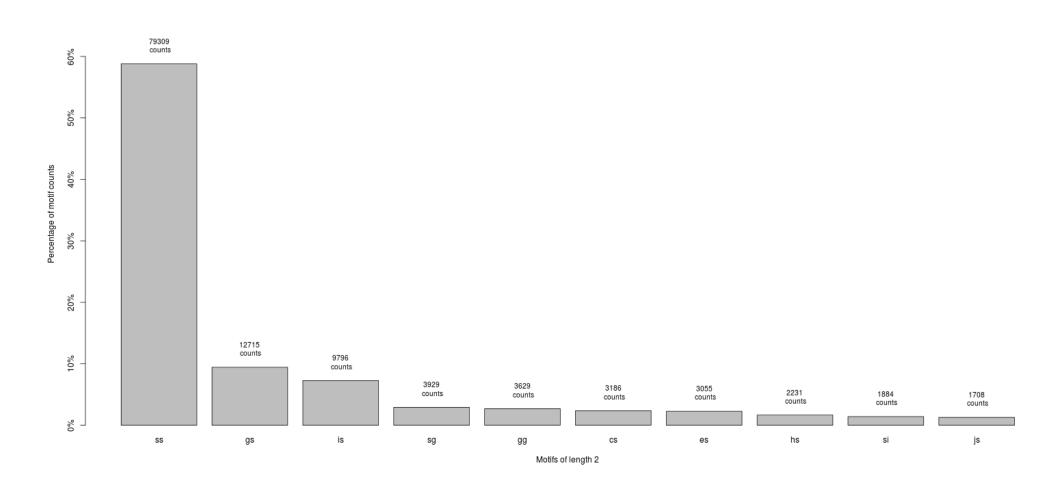


DarkApoLow, first 10 precentages of total 20 motif counts of length 9

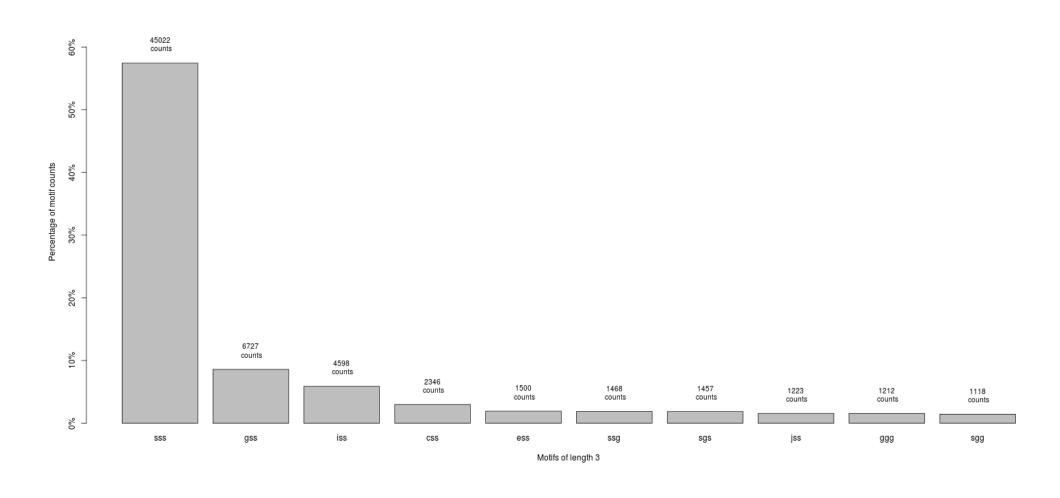




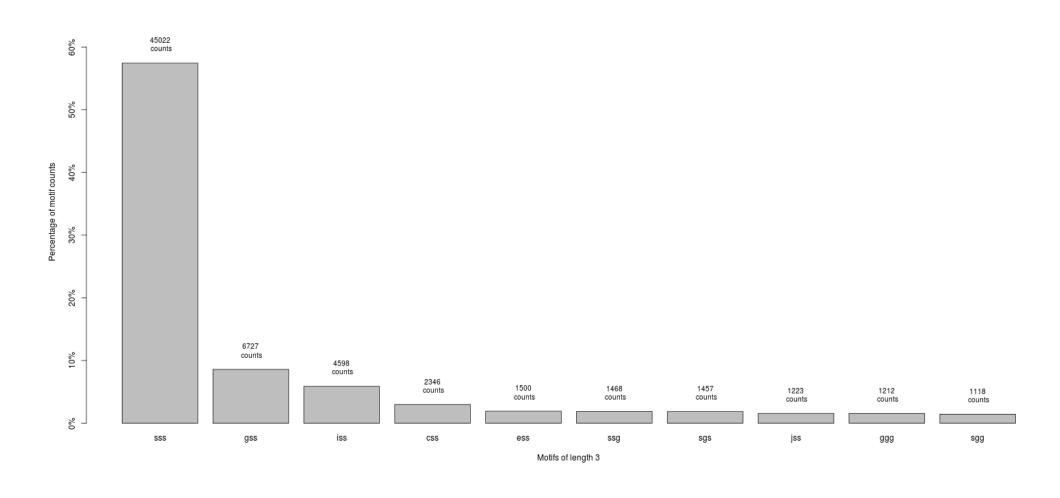
DarkApoHigh, first 10 precentages of total 134871 motif counts of length 2

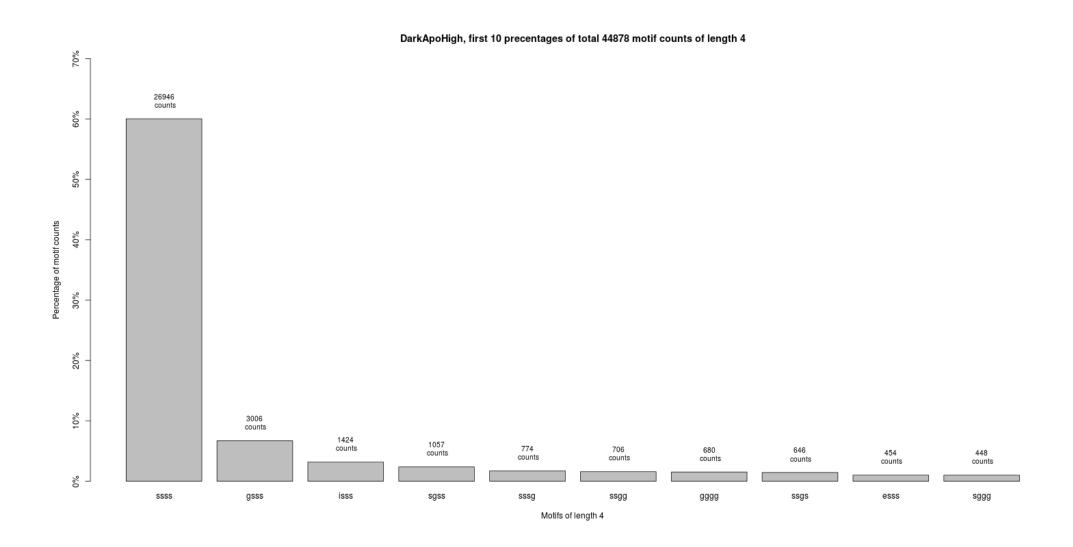


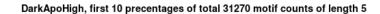
DarkApoHigh, first 10 precentages of total 78384 motif counts of length 3

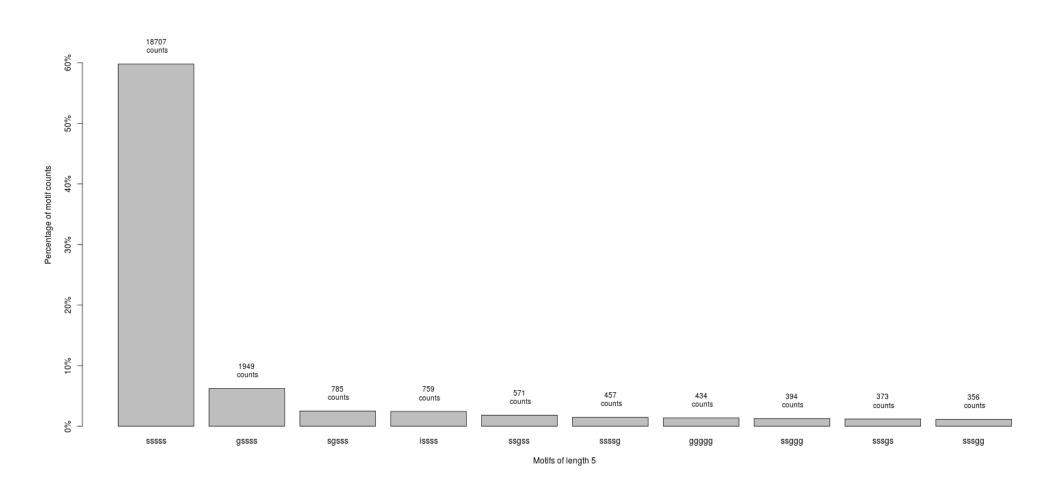


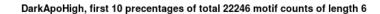
DarkApoHigh, first 10 precentages of total 78384 motif counts of length 3

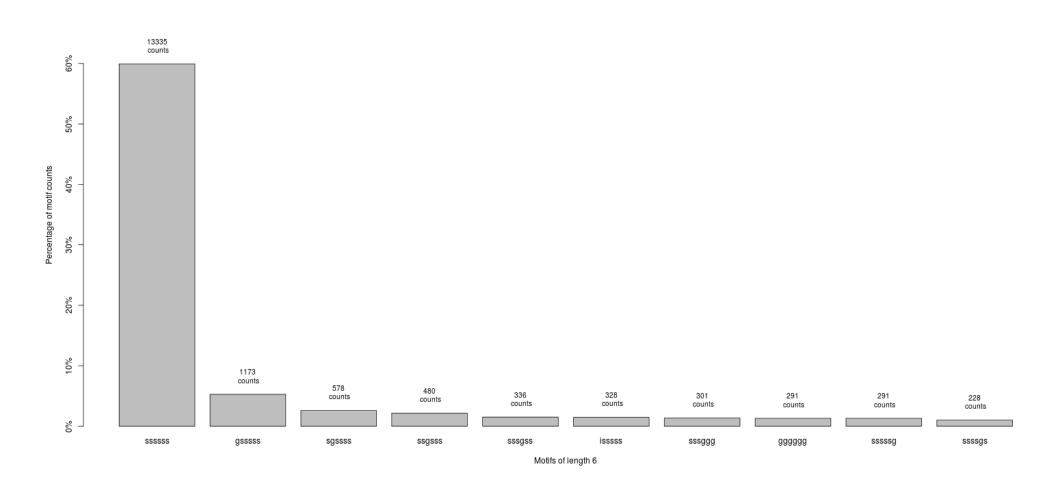


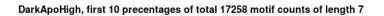


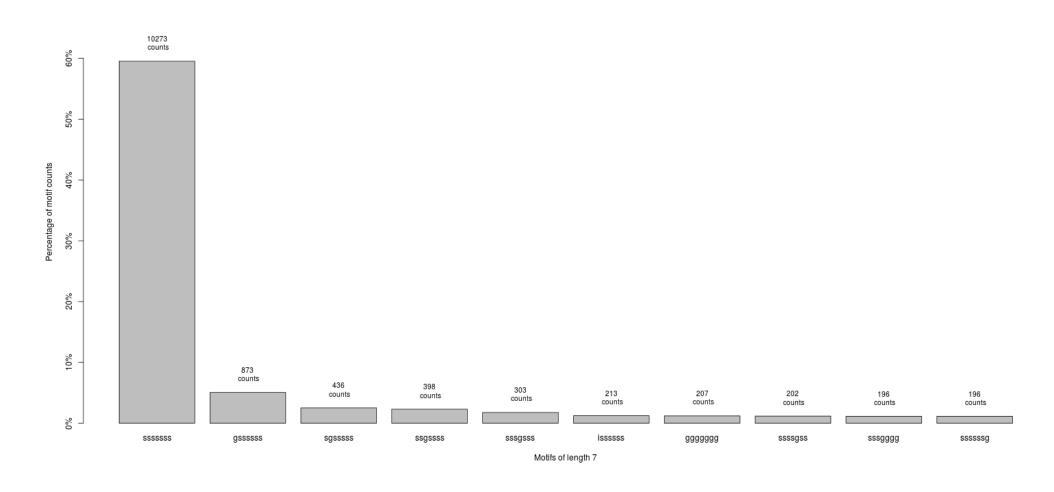


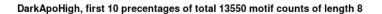


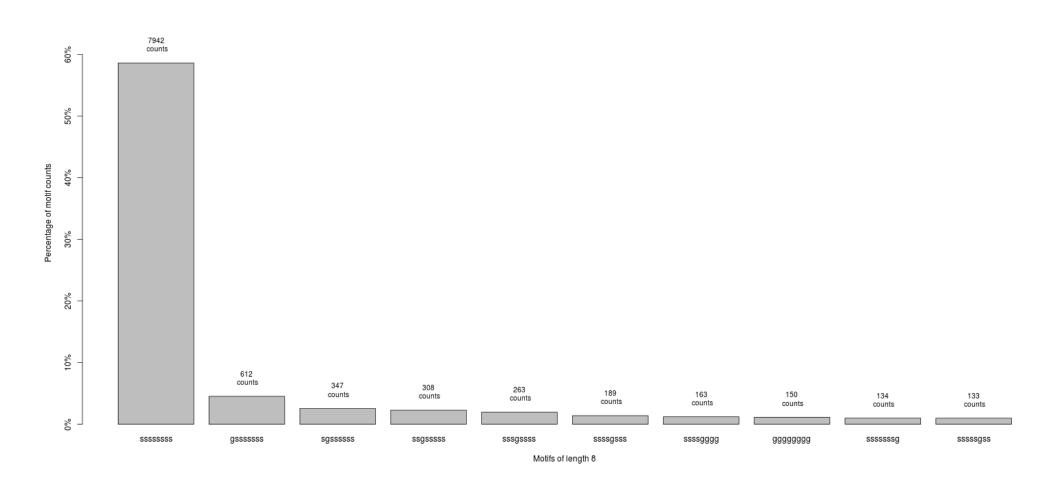


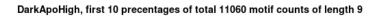


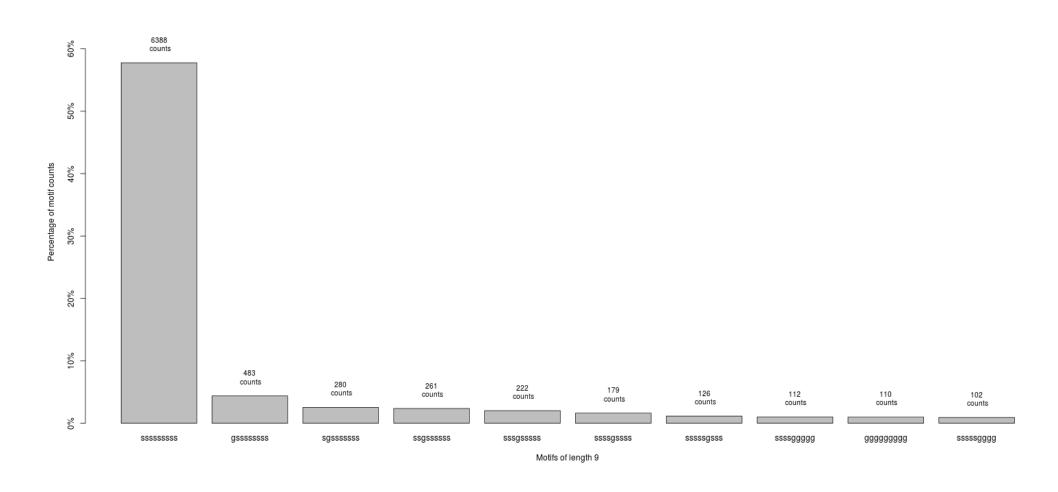




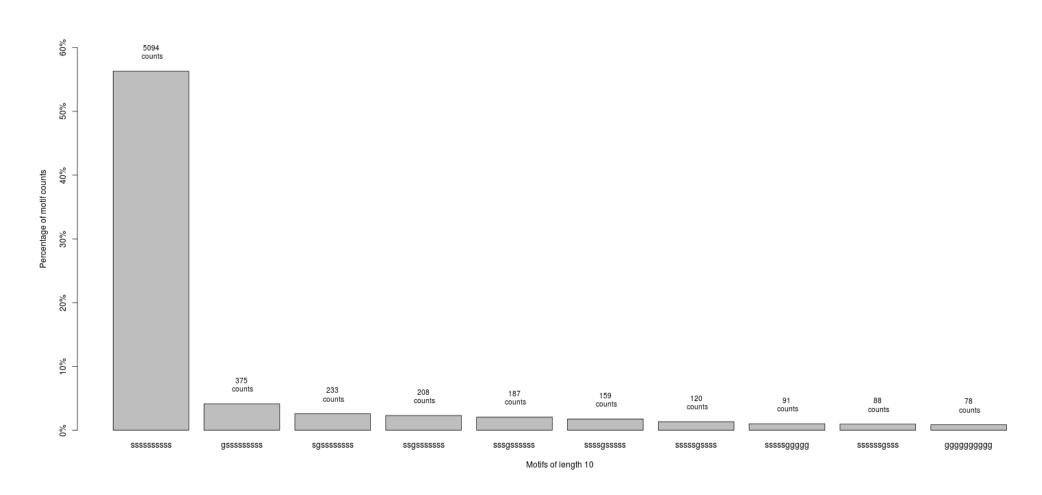




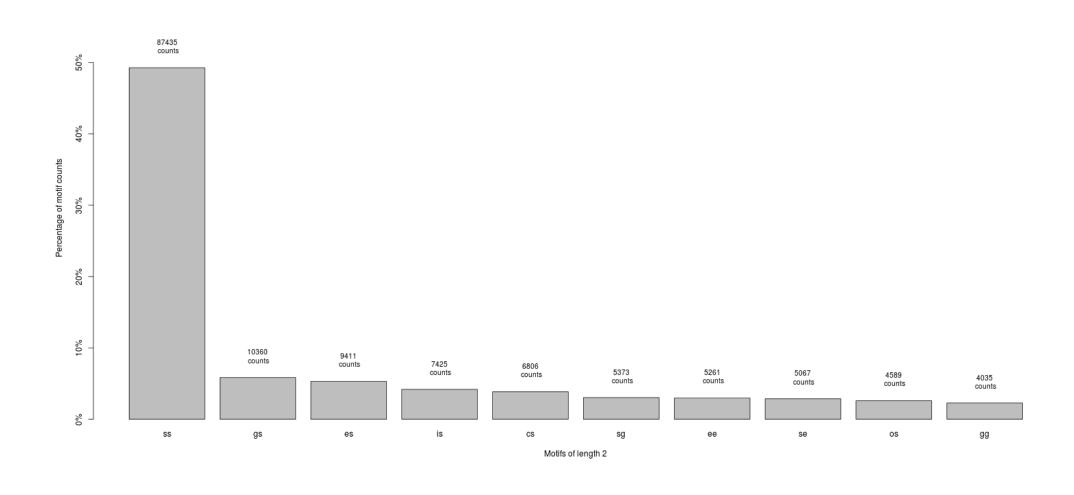




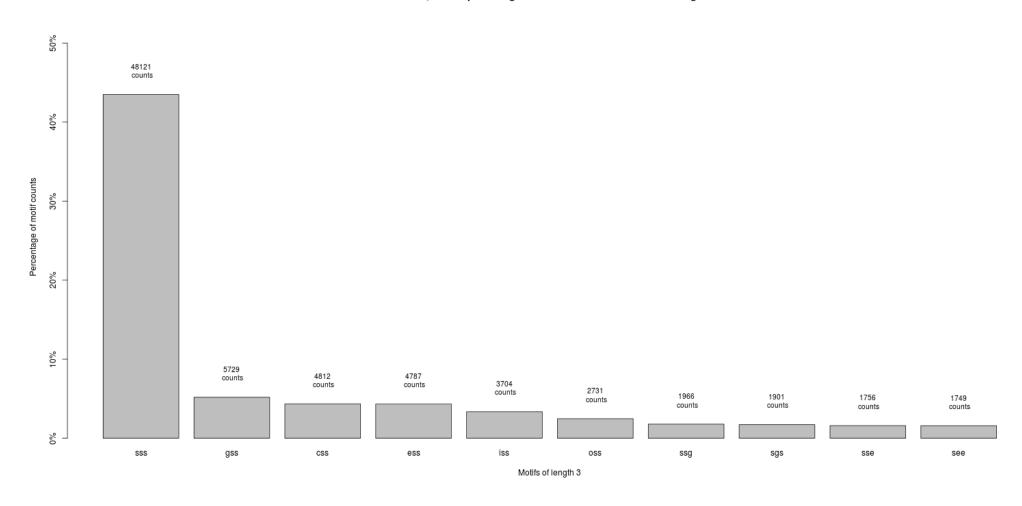
DarkApoHigh, first 10 precentages of total 9048 motif counts of length 10

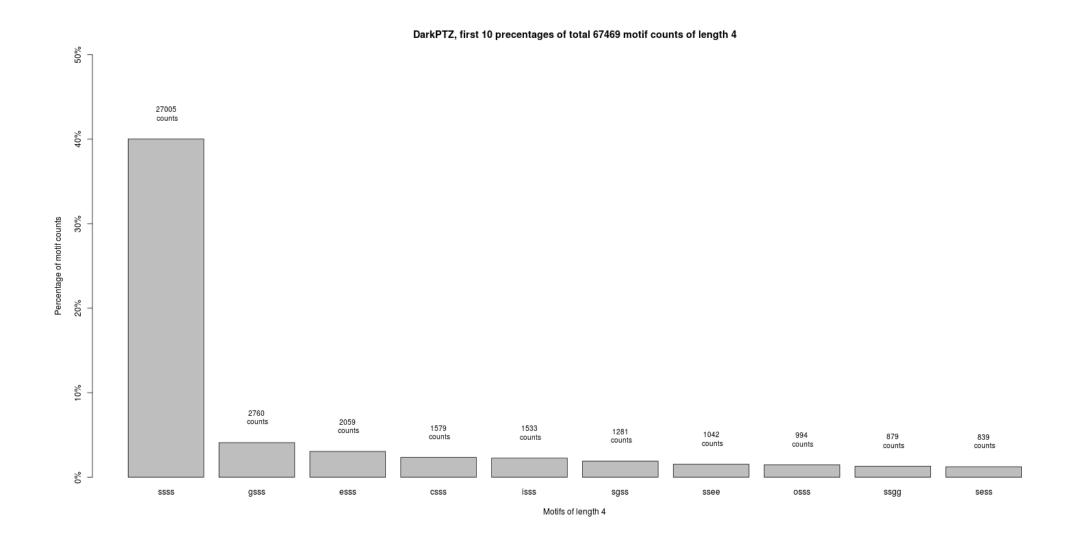


DarkPTZ, first 10 precentages of total 177434 motif counts of length 2

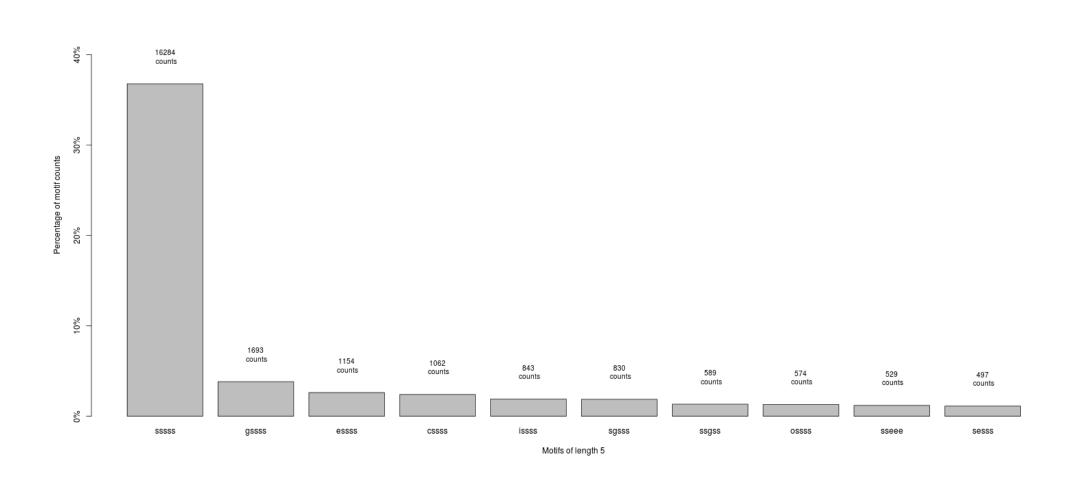


DarkPTZ, first 10 precentages of total 110626 motif counts of length 3

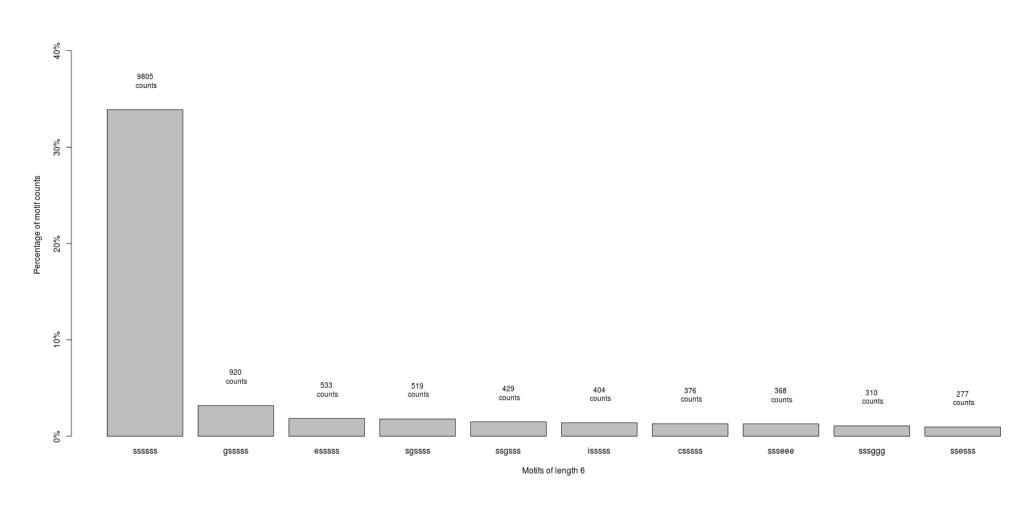


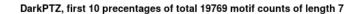


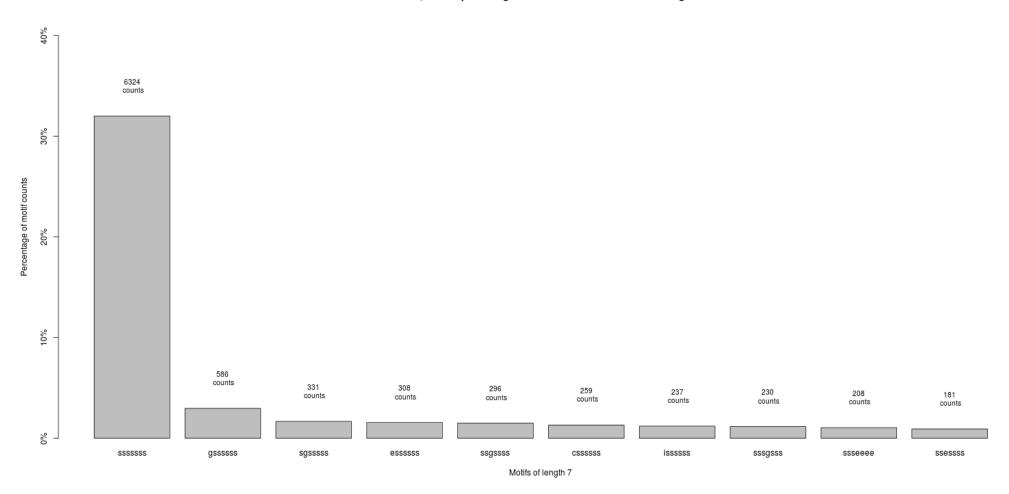
DarkPTZ, first 10 precentages of total 44269 motif counts of length 5



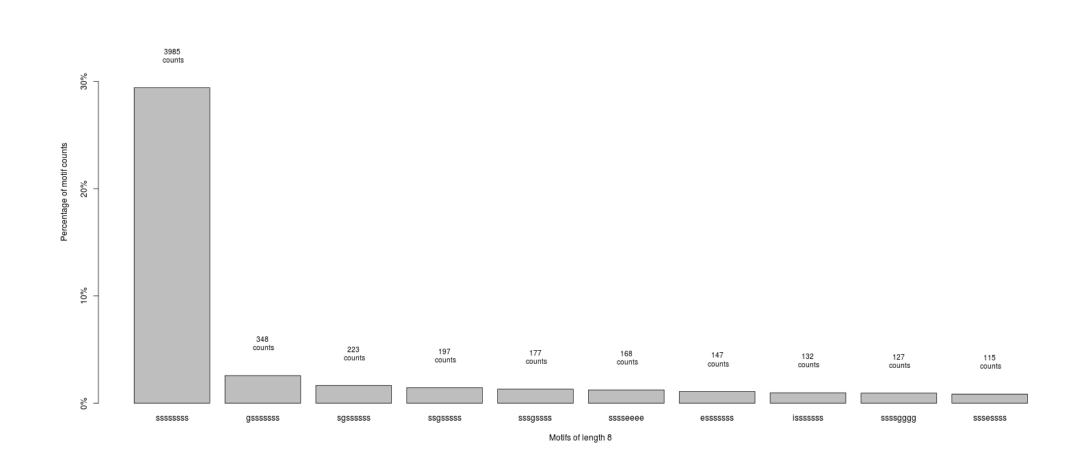
DarkPTZ, first 10 precentages of total 28938 motif counts of length 6



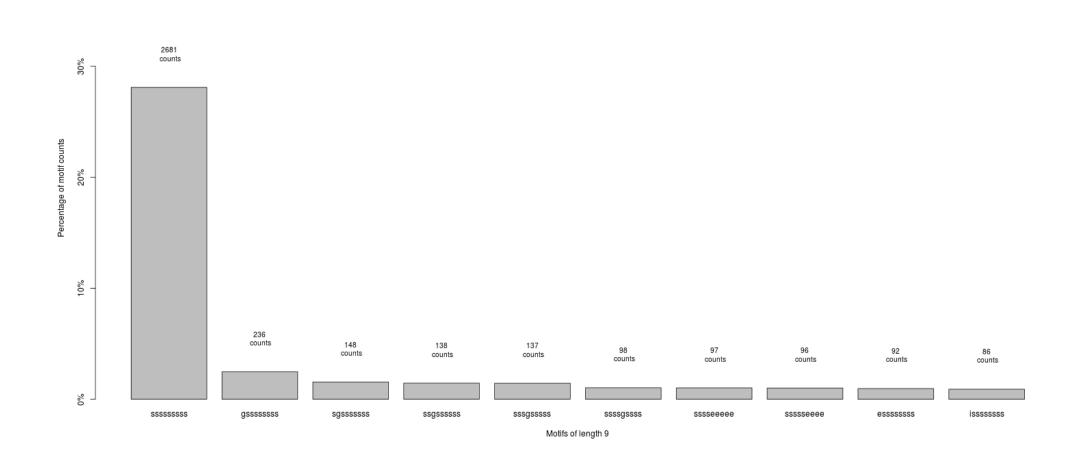




DarkPTZ, first 10 precentages of total 13548 motif counts of length 8



DarkPTZ, first 10 precentages of total 9544 motif counts of length 9



DarkPTZ, first 10 precentages of total 6776 motif counts of length 10

