



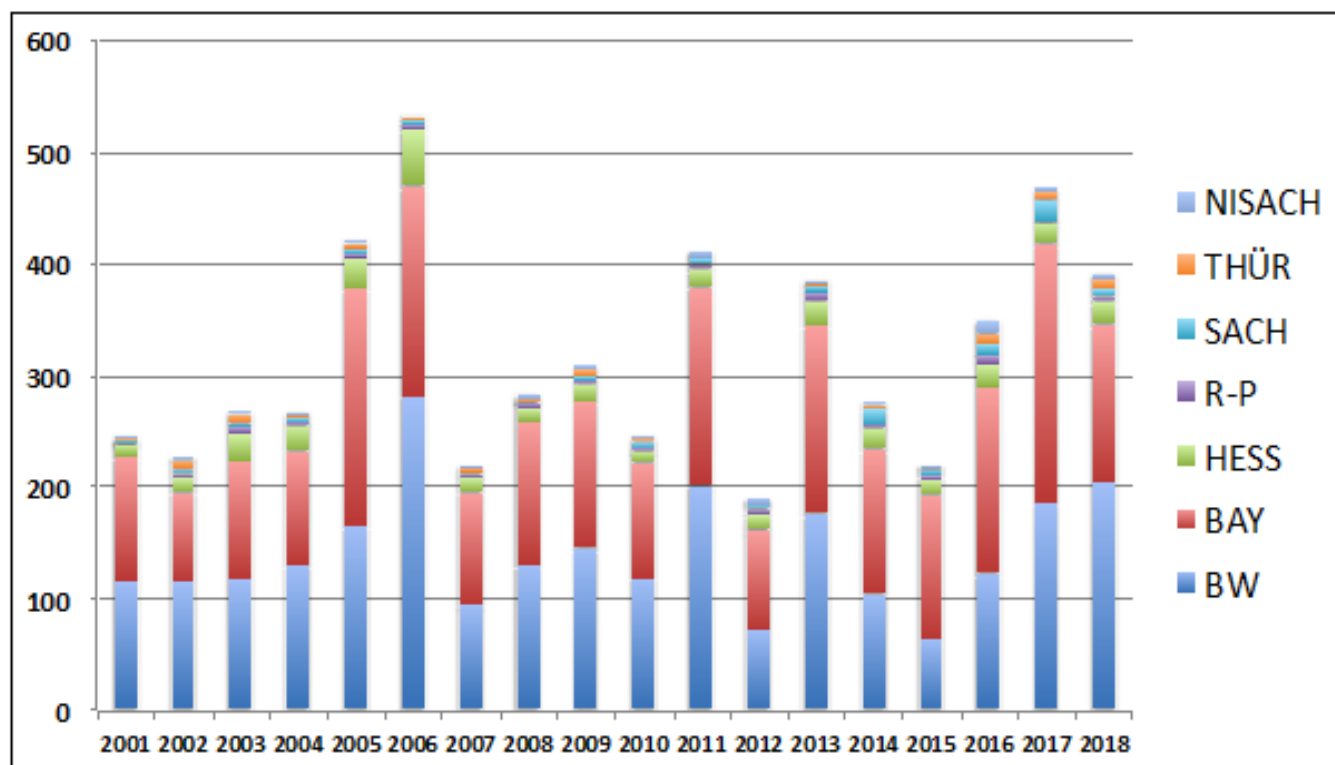
## 2018 – AN UNUSUAL TBE YEAR IN GERMANY AND WHAT IT WILL FINALLY BRING

While 2017 was already a year with high numbers of TBE in Germany, the year 2018 seems again to exhibit an increase in human TBE cases in Germany. So far (23 August 2018), more than 400 human TBE cases have been recorded by the Robert Koch Institute, Berlin. If the TBE virus transmission season would stop now, this would be already the year with the fifth highest number of human TBE cases in Germany recorded during the last 18 years (Fig. 1).

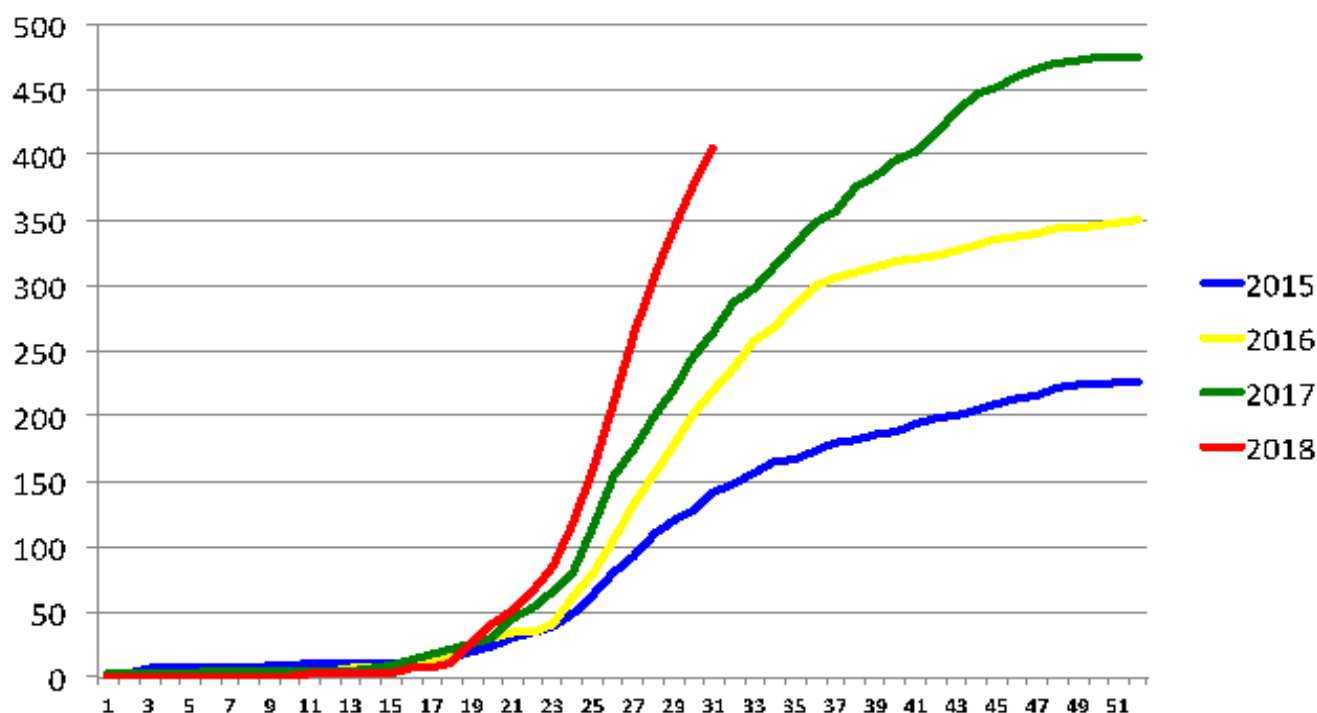
If we analyze the number of cumulative weekly human TBE cases in Germany since the beginning of this year's transmission season, the data shows that in comparison to last year at the actual week 31 we have an increase of the total number of reported cases of about 50% (Fig. 2). In the first 31 weeks of 2018 a total of 406 human TBE cases

were reported. In the same time period in 2017 263 human cases were reported, which is about 50% less than in 2018. The analysis of the involved federal states shows that, as in past years, 85% of all human cases in 2018 (346/406 human cases) were reported from the two federal states of Bavaria and Baden-Württemberg. However, while during the last five years there was an overweight of human cases in Bavaria versus Baden-Württemberg, this year is exactly the opposite. In 2018 up to week 31, a total of 204 human cases were reported from Baden-Württemberg in contrast to Bavaria, which reported 142 human cases in the same period of time.

In Baden-Württemberg a total of 204 human cases have been reported during the 31 weeks of



**Figure 1:** Registered human TBE cases in Germany since mandatory reporting in 2001 in the six most involved federal states of Germany. The numbers of 2018 are up to 23<sup>rd</sup> of August (source: SurvStat, RKI Berlin).



**Figure 2:** Cumulative human TBE cases in Germany in 2018 in comparison to the years 2015 to 2017 (source: SurvStat, RKI Berlin).

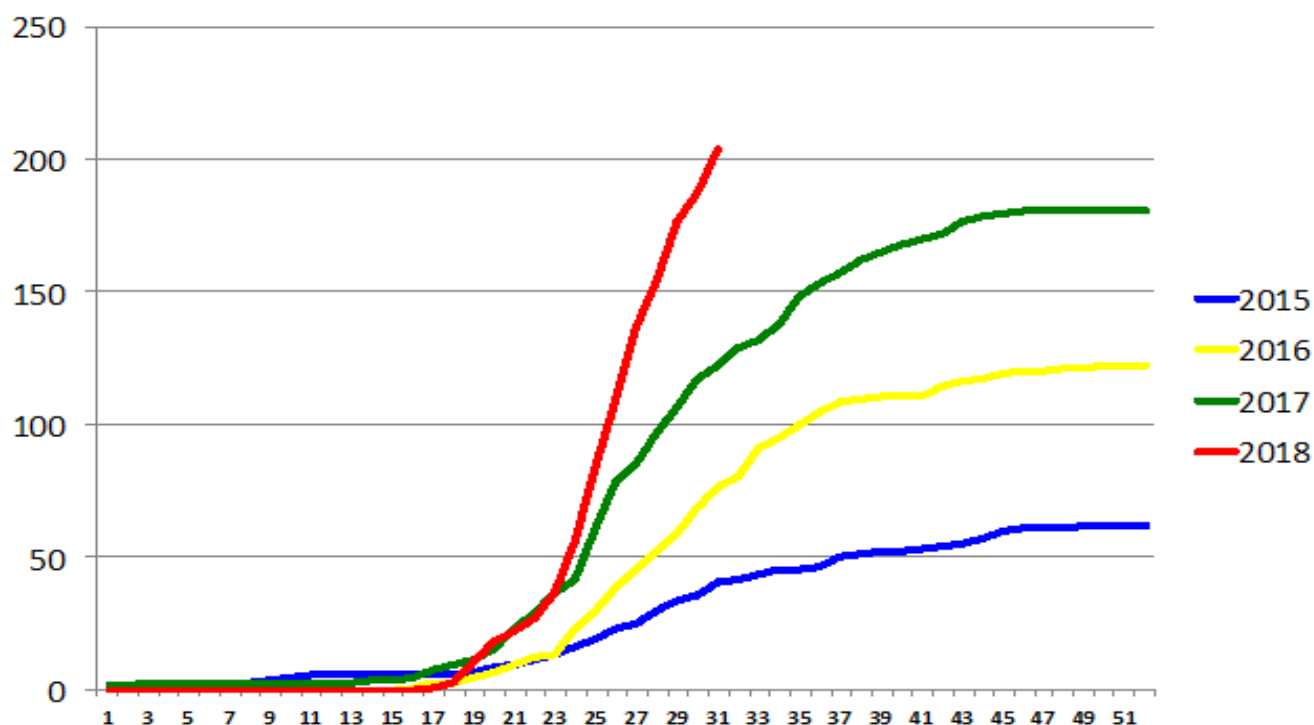
the year 2018. This is an increase of human cases of about 40% in comparison to the data of the same time period in 2017 (122 reported human cases) (Fig. 3).

In Bavaria, 2017 was the year with the highest number of human TBE cases ever recorded since the introduction of the mandatory reporting in 2001. In 2018 up to week 31 a total of 142 human TBE cases have been reported. In 2017, at that week of the year, 111 human cases had been reported. Therefore, an increase of about 30% has to be noticed for Bavaria in 2018 (Fig. 4).

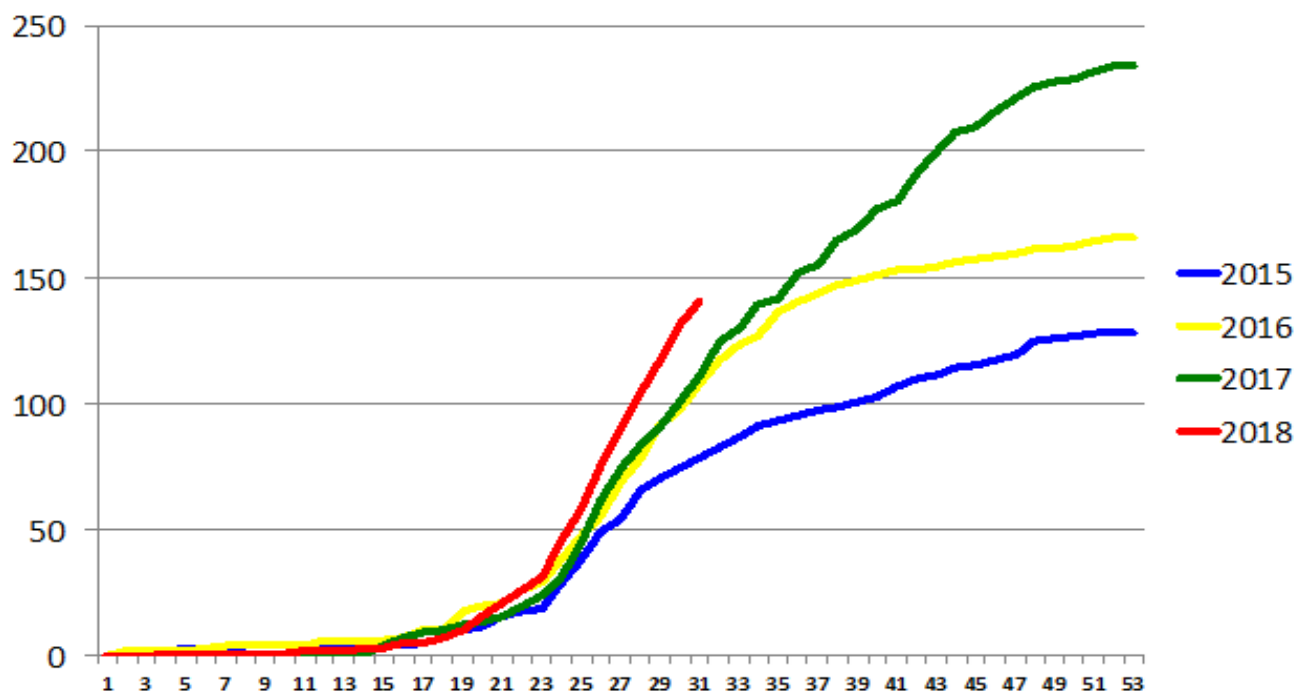
What are the prospects for the rest of the year? It is difficult to make a forecast, as there are a number of different factors influencing the human infection numbers. However, if we presume a similar course of the reported cases like in 2017 (where we however had a strong autumn season in Bavaria, but a „normal season“ for TBE in Baden-Württemberg), we can estimate that up to more than 300 human cases will be reported in Bavaria and more than 270 human

cases in Baden-Württemberg. For the whole of Germany, clearly more than 600 human cases can be expected. We will see whether these bad expectations will come true.

This year's TBE season is not only a German problem, but also other Central European countries report maximum number of human TBE cases. Switzerland reports more than 300 human TBE cases (Bundesamt für Gesundheit, BAG). Also, in Austria, there are high numbers of human TBE cases. Currently, already more than 100 human cases are diagnosed and confirmed in Austria (Epidemiological Information of the Institute of Virology, Medical University of Vienna, Austria). So far, we do not have a good explanation for this development. We observed high tick densities and maybe this is one factor. Another factor is the unusually warm summer which might cause many people to go into the forests and bring them into contact with ticks. For the rest of the year it will be interesting to see the further development of tick populations and of human TBE cases.



**Figure 3:** Cumulative human TBE cases in the Federal State of Baden-Württemberg in 2018 in comparison to the years 2015 to 2017 (source: SurvStat, RKI Berlin).



**Figure 4:** Cumulative human TBE cases in the Federal State of Bavaria in 2018 in comparison to the years 2015 to 2017 (source: SurvStat, RKI Berlin).

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