

NRLP ACTIVITIES FOR TRICHINELLA IN ROMANIA, 2018

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NRL ACTIVITY

Trichinosis is a zoonosis that is monitored in Romania using artificial digestion method complying with *Regulation (EC) 1375/2015*.

According to the National Surveillance Program, confirmations for *Trichinella* species are carried out by molecular biology techniques at EU-RL - ISS Rome and NRL Romania. *Trichinella* species identification is performed by EURL Parasites multiplex - PCR method.

The NRL network comprises 41 county laboratories, of which the experts from all 41 officially laboratories are annually trained by the NRL and guided to implement and validate the digestion method. On request, the method is provided to private labs which receive the same guidelines as the official labs.

2018 *Trichinella* detection ring test participants: 98 laboratories of which 41 official laboratories and 56 slaughter house labs. All participants received satisfactory results after a retest session.

All 41 county laboratories use the validated and accredited method.

EPIDEMIOLOGICAL DATA

In 2018, there were a total of 304 recorded positive cases in 488229 tested (a prevalence of 0.006%), as follows:

- 134 domestic pigs in backyards;
- 166 wild boars;
- four bears;
- no positive cases were recorded in horses.

Comparing to 2017, in 2018 it was observed a higher rate of positiveness in domestic pigs (119 in 2017 and 134 in 2018) and an increase number in wild boars (129 in 2017 and 166 in 2018). Paradoxically, the incidence of trichinosis in backyards has decreased with 0.001% (0.054% in 2017 and 0.053% in 2018) as well as in wild boars, from 1,16% in 2017 to 1.04% in 2018.

Trichinella spiralis and *britovi* were isolated in 33 counties (fig. 2). Eight counties have not recorded any positive case. The predominant species identified by PCR was *T. spiralis*, but in the wild most of cases were *T. britovi* (fig.4).

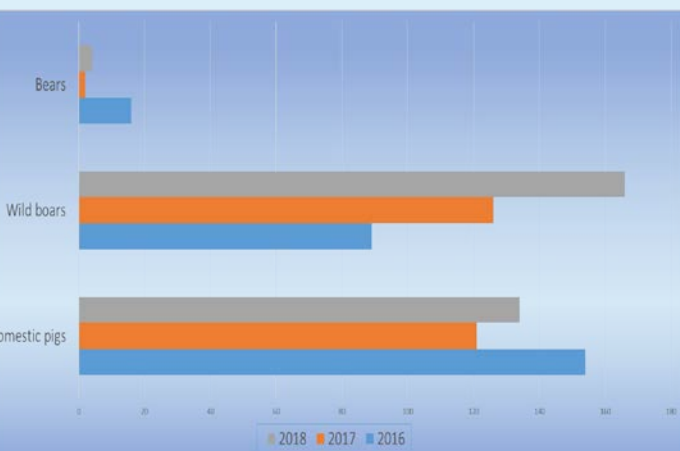


Fig. 1 - *Trichinella* spp. outbreaks in 2015, 2016 and 2017

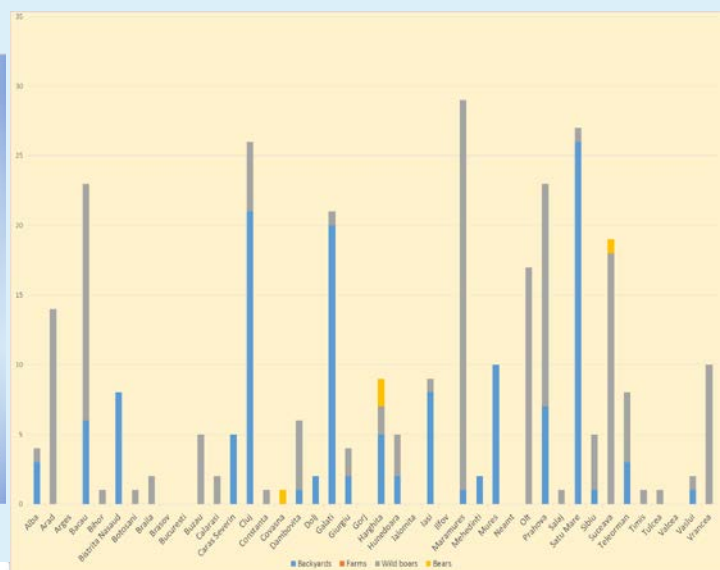


Fig. 2 - Species of *Trichinella* – counties distribution in 2018



Fig. 3 - *Trichinella* 2018 – percentage % distribution of positive units per counties

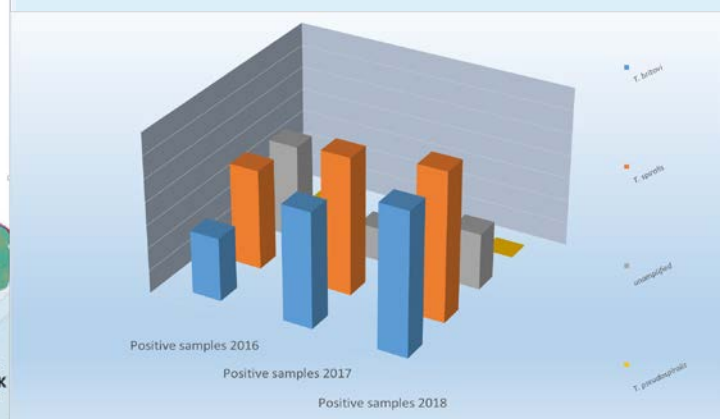


Fig. 4 - *Trichinella* species in 2016, 2017 and 2018

CONCLUSIONS

- The number of *Trichinella* positive cases in 2018 increased with 18,42% in comparison with 2017 (may be because of the raised number of wild boars hunted due to African swine fever prevention measures).
- The most dominant species identified in pig population in Romania was represented by *Trichinella spiralis* with a share of 42,76 % of the total number of *Trichinella* confirmed in 2018 (125 *T. britovi*, 130 *T. spiralis* and 49 unamplified).
- In eight from 41 counties there was no positive cases of *Trichinella*.



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