



Mycoplasma synoviae infection in domestic meat-type geese

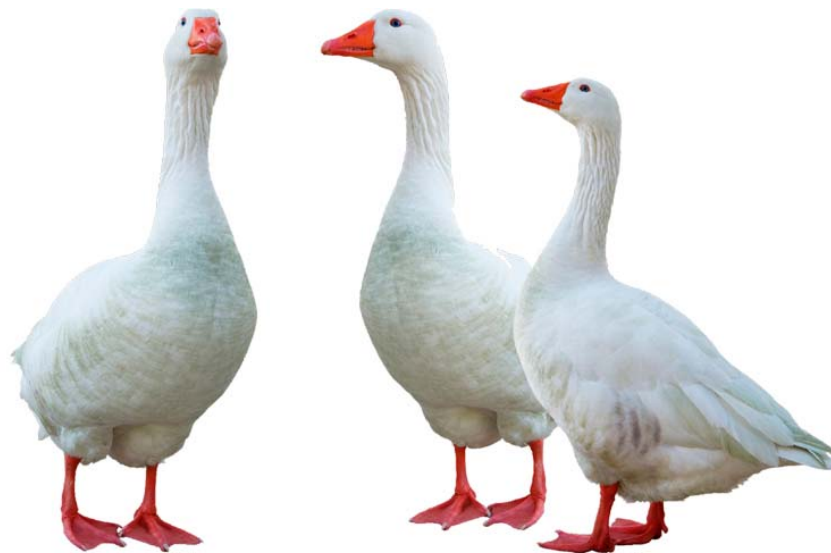
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Overview

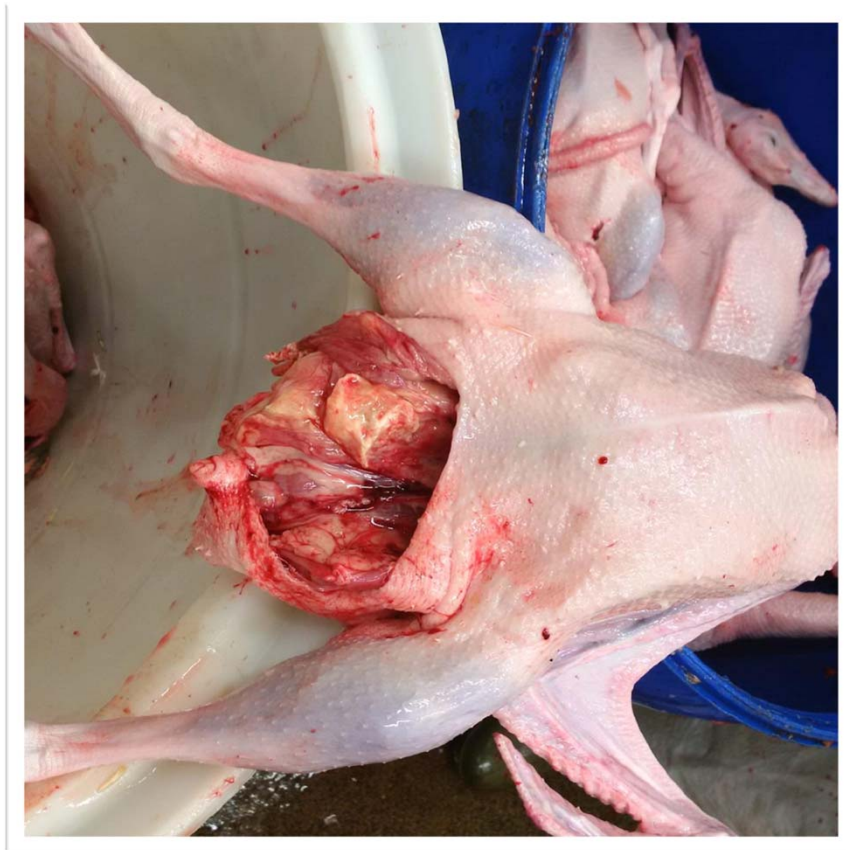
- Clinical presentation at slaughter
- Lab post mortem and diagnostics
- Conclusion





Slaughter presentation

- July 14th 2016 – approximately 2,000 12 week old meat geese sent to slaughter
- No concerns on ante mortem inspection
- Post mortem, inspectors reported extensive air sacculitis, poor bleed out and dark colouration (cyanosis)
- Suspected aspergillosis – raised on soyabean straw
- Representative goose carcasses frozen and sent to AHL on July 19th





1st AHL Submission

Gross post mortem

- Disease was less severe than reported at plant
 - Tracheal exudate
 - Moderate pulmonary congestion and edema
 - Mild airsacculitis
- Did not seem representative of photos/description
 - Most air sacs removed by processing

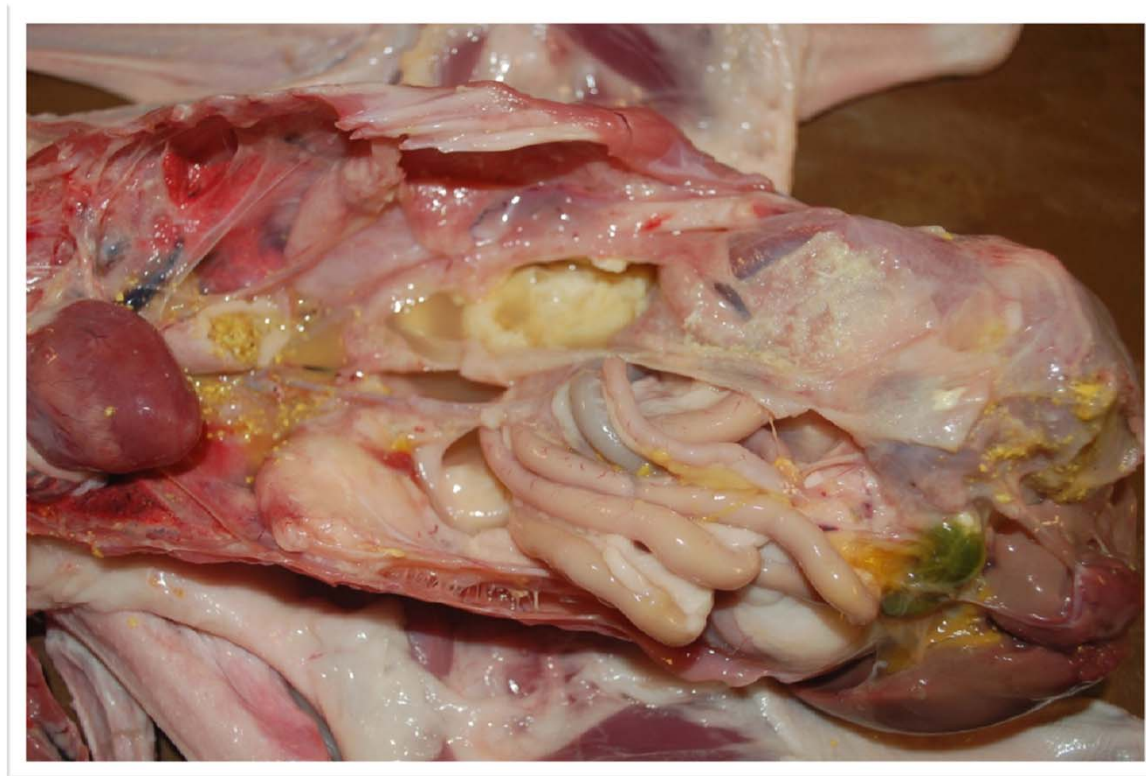


2nd & 3rd Submission

- Subsequent lot on July 22nd – again elevated condemnations
 - More representative and intact samples sent to AHL
- Elevated condemnations throughout late July and early August
 - Birds were reportedly held and treated, shipped to slaughter August 17th after withdrawal period met
 - Again, high condemnations
 - 3rd submission to AHL of representative birds

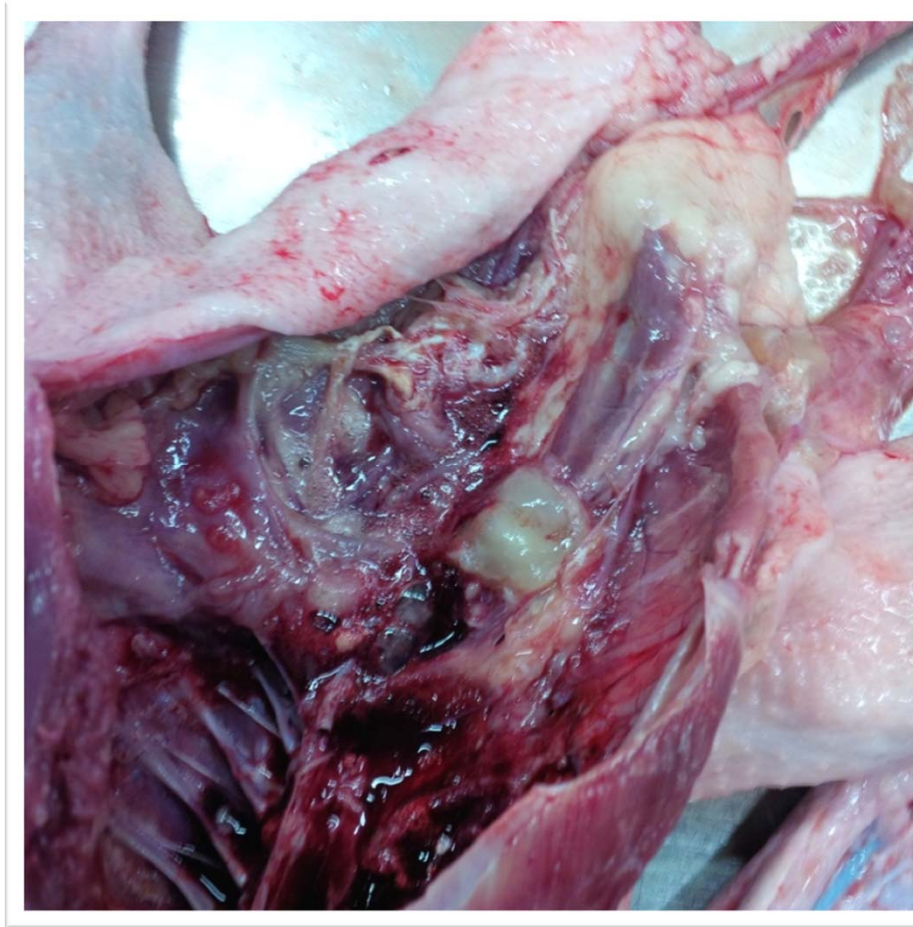


Second submission – caudal air sacs affected



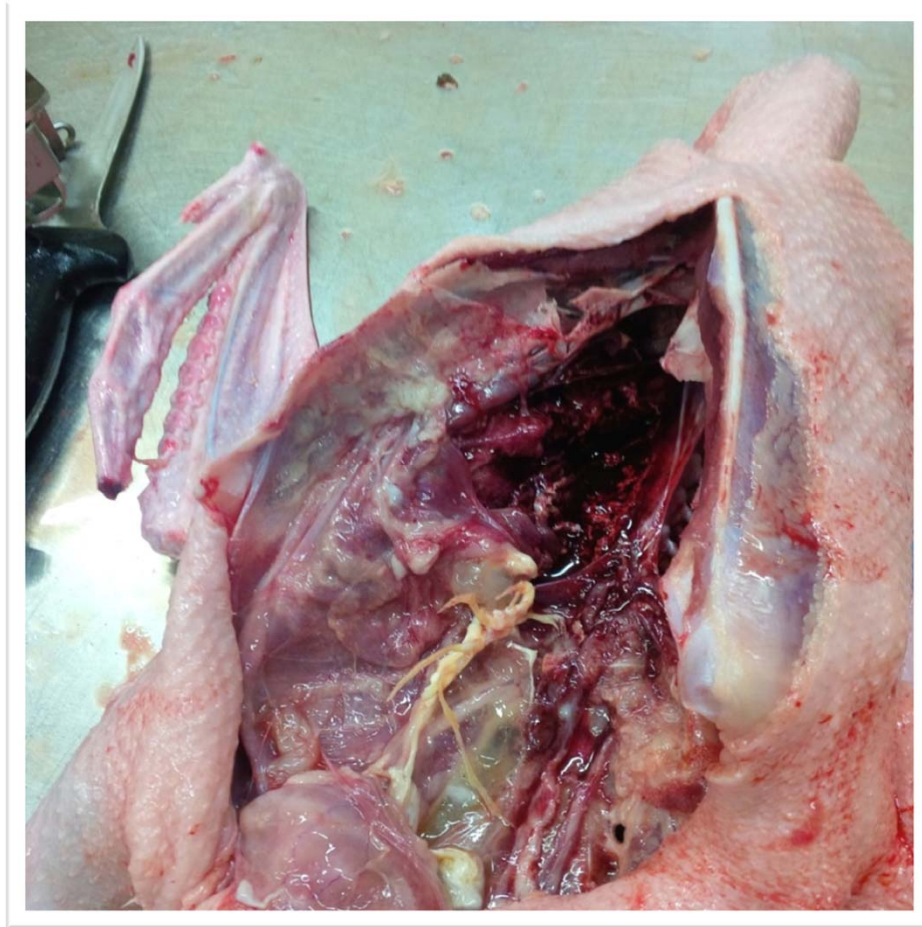


Third submission - caudal air sacs affected, poor bleed out, pneumonia





Third submission - caudal air sacs affected, poor bleed out, pneumonia







Third submission - caudal air sacs affected, foamy content





Diagnosics at AHL

Each submission:

- Gross post mortem
- Virology - PCR for avian influenza, avian paramyxovirus
- Culture - Tissues submitted for bacterial, mycoplasma and fungus culture
 - Were suspecting a goose-specific species of *Mycoplasma* so asked for mycoplasma culture



AHL results

- Virology – negative
- Culture
 - All negative for fungus – not seen on air sac wet mounts or histology either
 - 2nd submission one carcass 3+ *Klebsiella oxytoca*
 - 1st submission was culture positive for *M. synoviae* on Aug 10th



AHL results

- Conducted MS and MG PCR testing on trachea, lung, airsac swabs from first two submissions
 - All were positive for *Mycoplasma synoviae* and negative for *Mycoplasma gallisepticum*
- Meanwhile, third submission have been made so lung and airsac pools were also tested
 - Positive for *Mycoplasma synoviae*
- But ...





Goose Mycoplasma

- Diseases of Poultry 13th edition
 - *M. cloacale*, *M. anseris*, and *Mycoplasma* sp. 1220, 1223, 1225 reported in farmed geese in Europe
 - Air sacculitis, pneumonia, embryonic death

Stipkovits & Szathmary 2012 Poultry Science

- *M. gallisepticum* and *M. synoviae* reported in geese from mixed farm sites in Europe



Goose Mycoplasmosis

Generally, reported diseases:

- Embryonic death
- Fibrinous airsacculitis and pneumonia +/- arthritis +/- delayed growth
- Respiratory disease and low mortality
- Once reproductively active, decreased egg laying, obvious clinical respiratory disease and increasing mortality
- Influenced by husbandry

(Stipkovits & Szathmary 2012)

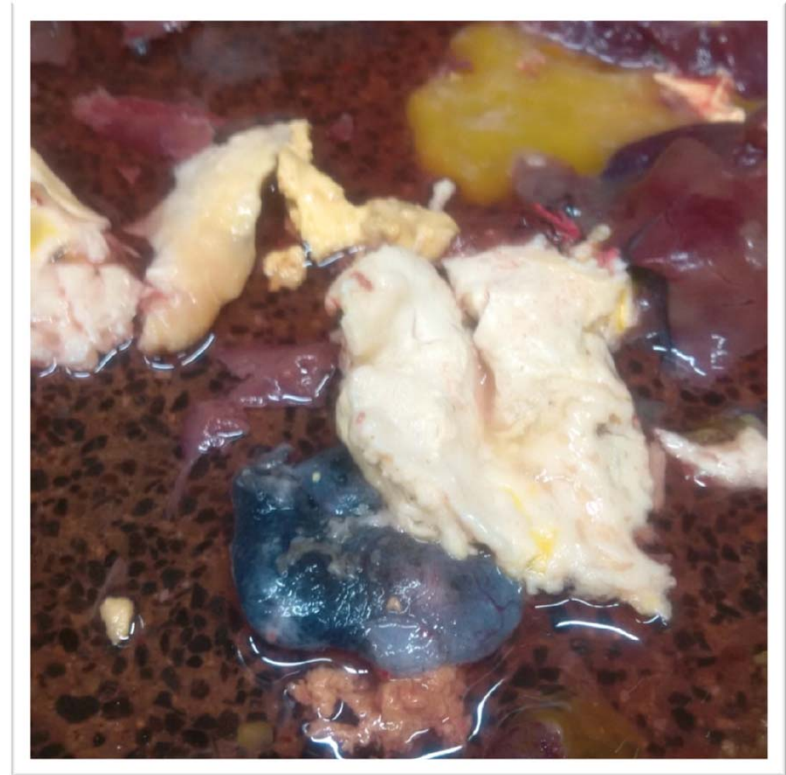
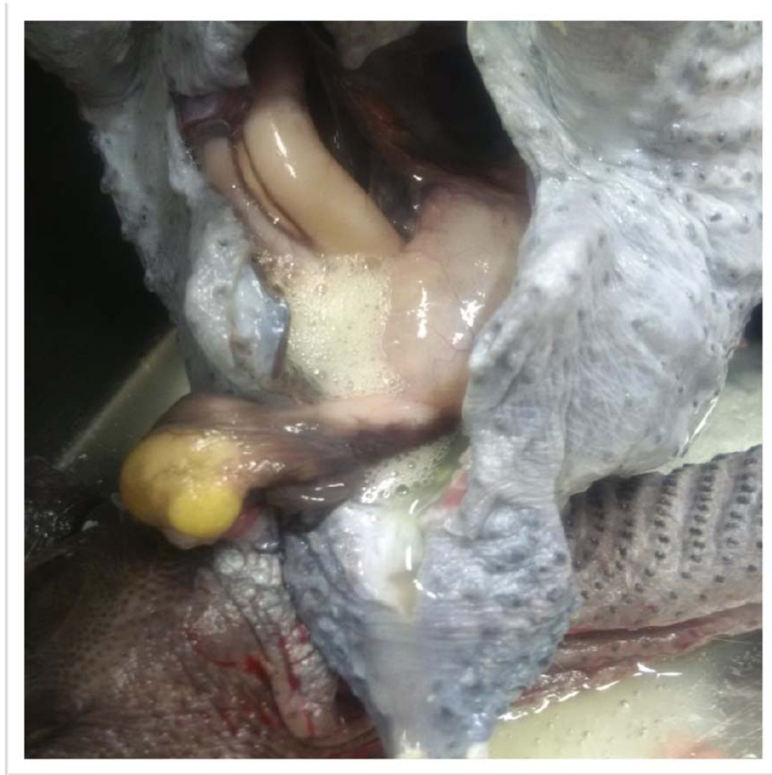


Conclusion

- This is the first identification of *Mycoplasma synoviae* causing primary disease in geese in Ontario
- Plant also contracts the raising of ducks and silkie chickens
- Slaughters both young silkies and cull silkie breeders
 - Cull silkie breeders historically have had high condemnations for airsacculitis



Silkie airsacculitis and fibrinous exudate





Questions?

