Fig. 5 Correlation between Ozone and Dinitrogen Monoxide at 15-30 km over Antarctica as Observed by ILAS-II

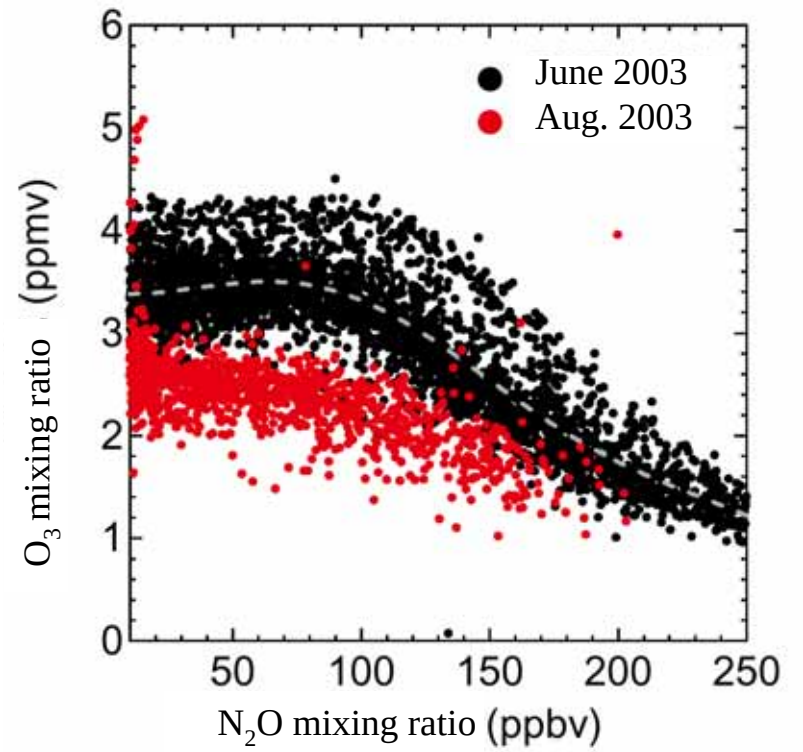

Fig.5 shows correlation between the observed values of ozone (O_3) and dinitrogen monoxide (N_2O) measured at 15-30 km above the Earth's surface by ILAS-II in June (black) and August (red) of 2003. Both O_3 and N_2O are tracers, the concentrations of which remain unchanged in the process of air movement. Their correlation stays almost unchanged as long as there is no ozone destruction. Based on this, the amount of ozone destruction is calculated by comparing O_3 concentrations at different times to the same N_2O concentration.

As shown by the figure, the O_3 concentrations from June to August had decreased compared to N_2O, showing that ozone depletion was in progress. Compared to the June data, the August data generally show that 30% of the ozone had been destroyed. Since all data show that the O_3 concentrations versus N_2O have decreased, it is evident that ozone depletion was taking place in wide areas over Antarctica.