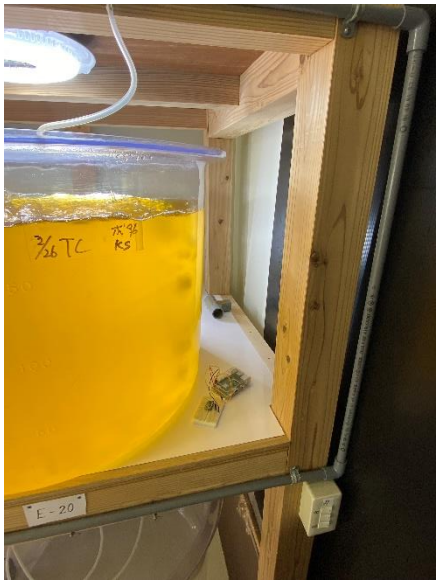
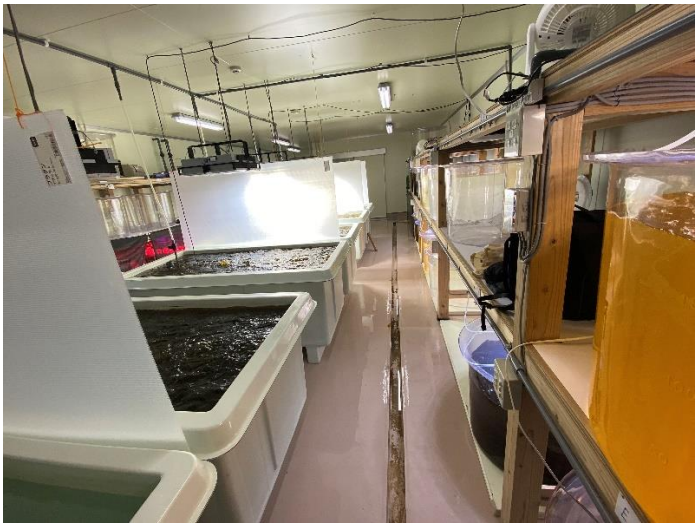
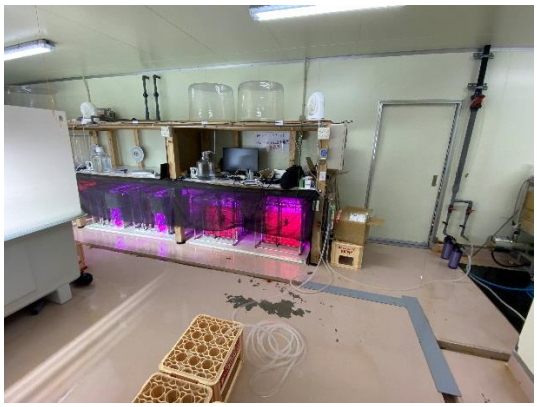
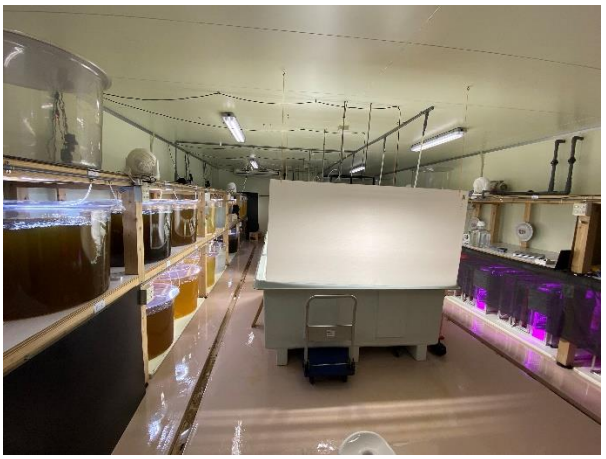
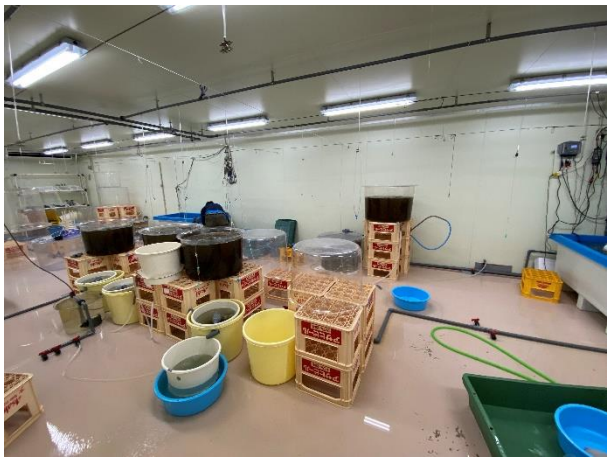
0227 阿南養殖場での実証実験 1

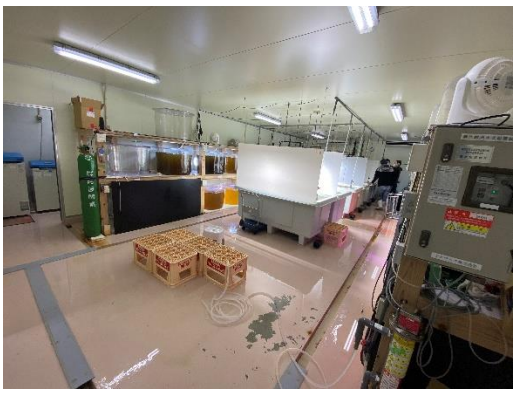


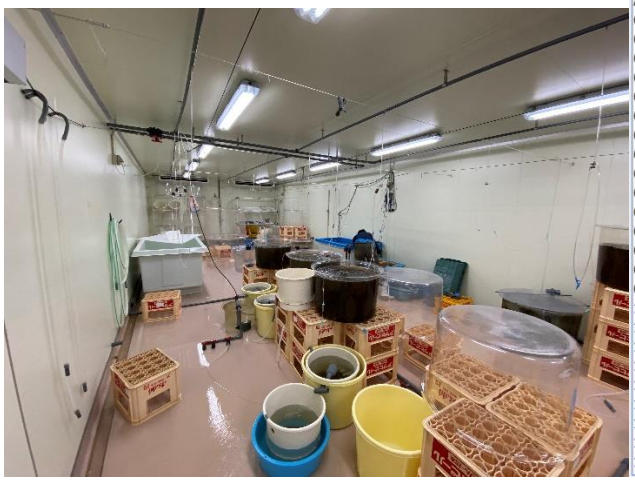












Problems Console Properties Router EndDevice Coordinator
Serial: (COM5, 115200, 8, 1, None, None - CLOSED) - Encoding: (ISO-8859-1)

```
APP: Network Started
APP: Channel - 11
APP: vCheckStackEvent: unhandled event 29
APP: vCheckStackEvent: unhandled event 29
01.[MAC: 0xc29d][Data16: 0x007b14ae47e17a00]
02.[MAC: 0xc29d][Data16: 0x00e3a59bc420b000]
03.[MAC: 0xc29d][Data16: 0x007f6abc74931800]
04.[MAC: 0xc29d][Data16: 0x00d578e926310800]
05.[MAC: 0xc29d][Data16: 0x007b14ae47e17a00]
06.[MAC: 0xc29d][Data16: 0x00df4f8d976e1200]
07.[MAC: 0xc29d][Data16: 0x002fdd2406819500]
08.[MAC: 0xc29d][Data16: 0x0025068195438b00]
09.[MAC: 0xc29d][Data16: 0x00cff753e3a59b00]
0a.[MAC: 0xc29d][Data16: 0x00c74b3789416000]
0b.[MAC: 0xc29d][Data16: 0x002fdd2406819500]
0c.[MAC: 0xc29d][Data16: 0x0079e9263108ac00]
0d.[MAC: 0xc29d][Data16: 0x0025068195438b00]
0e.[MAC: 0xc29d][Data16: 0x00dd240681954300]
0f.[MAC: 0xc29d][Data16: 0x002db29defa7c600]
10.[MAC: 0xc29d][Data16: 0x0079e9263108ac00]
11.[MAC: 0xc29d][Data16: 0x00d9cef753e3a500]
12.[MAC: 0xc29d][Data16: 0x00cff753e3a59b00]
13.[MAC: 0xc29d][Data16: 0x0079e9263108ac00]
14.[MAC: 0xc29d][Data16: 0x008d976e1283c000]
15.[MAC: 0xc29d][Data16: 0x007b14ae47e17a00]
16.[MAC: 0xc29d][Data16: 0x00295c8fc2f52800]
17.[MAC: 0xc29d][Data16: 0x007d3f355eba4900]
18.[MAC: 0xc29d][Data16: 0x0083c0caa145b600]
```

Enddevice（センサ端末）１つ
Router　３つ
Coordinator　１つ

１回目は Router を経由していたのを確認した（1.pcapng）が、
２回目は Enddevice-Coordinator の接続となり，1 ホップ通信になっていた(2.pcapng).
原因として，
・水槽の数が少ない
・壁を貫通して接続できていた
が挙げられる．

しかし，上記の Coordinator の表示画像より，データロスを発生していなかった．

以下は使用したデバイスの MAC アドレスを記載する.

Enddevice：0x001BC50122016BDD

Coordinator に近い Router 順に COM11. COM12. COM4

```
C:\NXP\ProductionFlashProgrammer>JN51xxProgrammer.exe -s COM11 --deviceconfig -V 0
 COM11: Detected JN5169 with MAC address 00:1B:C5:01:22:03:7C:72
 COM11: Device configuration: JTAG_ENABLE,VBO_200,CRP_LEVEL0,EXTERNAL_FLASH_NOT_ENCRYPTED,EXTERNAL_FLASH_LOAD_ENABLE

C:\NXP\ProductionFlashProgrammer>JN51xxProgrammer.exe -s COM12 --deviceconfig -V 0
 COM12: Detected JN5169 with MAC address 00:1B:C5:01:22:03:7F:98
 COM12: Device configuration: JTAG_ENABLE,VBO_200,CRP_LEVEL0,EXTERNAL_FLASH_NOT_ENCRYPTED,EXTERNAL_FLASH_LOAD_ENABLE

C:\NXP\ProductionFlashProgrammer>JN51xxProgrammer.exe -s COM4 --deviceconfig -V 0
  COM4: Detected JN5169 with MAC address 00:1B:C5:01:22:03:7E:21
  COM4: Device configuration: JTAG_ENABLE,VBO_200,CRP_LEVEL0,EXTERNAL_FLASH_NOT_ENCRYPTED,EXTERNAL_FLASH_LOAD_ENABLE
```

以下は受信側の Coordinator のプログラムコードである.

```
case ZPS_EVENT_APS_DATA_INDICATION: //何かしら他端末からのデータを受信した
{

    uint16 u16bytesread;
    unsigned long long SensorData = 0;
    double double_SensorData =0;
    uint8_t Rxbyte[128];
    uint8_t i = 0;

    u16bytesread = PDUM_u16APduInstanceReadNBO(sStackEvent.uEvent.sApsDataIndEvent.hAPduInst,0,"a\x08",&Rxbyte);

    DBG_vPrintf(TRACE_APP, "%02x.", Rxbyte[0]);
    DBG_vPrintf(TRACE_APP, "[MAC: 0x%02x]", sStackEvent.uEvent.sApsDataIndEvent.uSrcAddress.u16Addr);  //EnddeviceのMACアドレス
    DBG_vPrintf(TRACE_APP, "[Data16: 0x");
    for(i = 1; i < 9; i++){
         DBG_vPrintf(TRACE_APP, "%02x", Rxbyte[i]);
    }DBG_vPrintf(TRACE_APP, "]");

    SensorData = (unsigned long long)(Rxbyte[0] & 0xFF);
    SensorData |= ((unsigned long long)(Rxbyte[1])) << 8;
    SensorData |= ((unsigned long long)(Rxbyte[2])) << 16;
    SensorData |= ((unsigned long long)(Rxbyte[3])) << 24;
    SensorData |= ((unsigned long long)(Rxbyte[4])) << 32;
    SensorData |= ((unsigned long long)(Rxbyte[5])) << 40;
    SensorData |= ((unsigned long long)(Rxbyte[6])) << 48;
    SensorData |= ((unsigned long long)(Rxbyte[7])) << 56;
    double_SensorData = (double)SensorData;
    DBG_vPrintf(TRACE_APP, " [Data10: %lf]", double_SensorData);

    DBG_vPrintf(TRACE_APP, "\n");


    /* free the application protocol data unit (APDU) once it has been dealt with */
    PDUM_eAPduFreeAPduInstance(sStackEvent.uEvent.sApsDataIndEvent.hAPduInst);
}
break;
```